



NATIVE OASIS IN INDIANAPOLIS

Deb Ellman, Daubenspeck
Community Nature Park

An Unlikely Story

"When will those high weeds get mowed?" "Where are the soccer fields and picnic tables?" "What are they gonna build in that empty field?"

Every once in a while, you hear remarks like this about Daubenspeck Community Nature Park on Indy's north side. Nearly 100 percent of the time, they come from people who have never set foot in the park.

At the park, you're more likely to hear: "Wow, the wildflowers are amazing, and I've never seen so many butterflies." "I love to bird-watch here." "My kids love this place—we volunteer on planting days and we watch it grow." "There's no place like this for a peaceful walk with my dog—I can't believe it's right here in the city."

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IUPUI students put their knowledge to the test in the real world planting the north wetland.

You can see how Daubenspeck Community Nature Park might be misunderstood. It's not your typical "park." Commuters speed by on Ditch Road just north of West 86th Street, not able to grasp how big it is or what amazing life it holds. But once you pull into the gravel parking lot and get out of your car, it's another story.

The first thing you notice during the growing season is three large flower boxes full of brilliant blooms. These are not your grandmother's roses! The showcases demonstrate how to add drama and color to landscaping using native wildflowers. The hope is that, once educated, home gardeners will choose hearty, beautiful,

beneficial natives over non-natives that entail extra work and succumb to foreign plant diseases.

The second thing you can't miss is the Information Kiosk, where a visual history reveals the deep love and enthusiasm for this park shared by the hundreds of volunteers (including many children) who built it.

The kiosk houses a bulletin board for visitor postings, an impressive list of native plant species found in the park, and a take-one box offering the free Trail Guide—one of the best you'll find in any park in the state. Made possible by The Efroymson Fund, the guide depicts plants



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INPAWS JOURNAL is published quarterly for members of the Indiana Native Plant and Wildflower Society. Material may be reprinted with the permission of the editor.

All are invited to submit articles, news items, and event postings of interest to our membership. Acceptance for publication is at the discretion of the editor. INPAWS welcomes opposing viewpoints.

Please submit text and photos via e-mail to wwford@comcast.net or via land mail to INPAWS JOURNAL, 6911 Cabernet Way, Indianapolis IN 46278.

Submission deadlines for specific issues are as follows:

Spring
February 23 for April 1 mailing

Summer
May 23 for July 1 mailing

Autumn
August 23 for October 1 mailing

Winter
November 23 for January 1 mailing

INPAWS Mission

To promote the appreciation, preservation, conservation, utilization and scientific study of the flora native to Indiana and to educate the public about the value, beauty, diversity, and environmental importance of indigenous vegetation.

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INPAWS is a not-for-profit 501(c)(3) organization open to the public. For membership information, visit www.inpaws.org.

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Information to be shared with INPAWS members may be directed to membership@inpaws.org.

Officers

President	Nancy Hill	317-283-8345	nanhill86@earthlink.net
Past President	Karen Hartlep	317-253-6164	khartlep@interdesign.com
Vice President	Kevin Tungeswick	765-354-2775	kevin.tungeswick@gmail.com
Recording Secretary	Bobbi Diehl	812-334-3543	diehrl@indiana.edu
Corresponding Secty	Hilary Cox	317-272-4938	coxhilary@sbcglobal.net
Treasurer	Kathleen Hartman	317-576-1727	khartman@greenleaf-fg.com

Chapter Leaders

East Central	Alicia Douglass	765-623-4652	alicia.bever@gmail.com
Central	Tom Hohman	317-831-1715	hohmantr@aol.com
South Central	Open		
West Central	Reni Winter	765-714-4288	reni@winterhavenfarm.us

Committee Chairs

Annual Conference	George Peregrim	317-841-0465	g.peregrim@comcast.net
Conservation	David & Jane Savage	317-873-5083	ksavage@indy.rr.com
Education	Dan & Sophia Anderson	317-849-3105	danjand1@sbcglobal.net
Grants & Awards	Mary Damm		marydamm@gmail.com
Historian	Ruth Ann Ingraham	317-253-3863	rai38@sbcglobal.net
Invasive Plant Education	Ellen Jacquart	317-951-8818	ejacquart@tnc.org
Journal Editor	Wendy Ford	317-334-1932	wwford@comcast.net
Membership	Mark Outcalt	317-257-3574	membership@inpaws.org
Native Plant Rescue	Dawn Bauman	317-274-0584	dbauman@iupui.edu
Plant Sale & Auction	Ron Jackson	317-782-3724	ronjack6@sbcglobal.net
	Melissa Moran	317-295-2021	moranfam@gmail.com
Programs & Field Trips	Mike Homoya		mhomoya@dnr.in.gov
Speakers Bureau	Dan & Sophia Anderson	317-849-3105	danjand1@sbcglobal.net
Website	Marcia Moore	317-940-8302	mmoore@butler.edu
Youth Outreach	Donovan Miller	317-283-1096	djbamiller@aol.com

INPAWS JOURNAL is printed on 100% post-consumer recycled paper.

Anticipation

As a lover of native plants in the woods and meadows AND as a gardener, this is my favorite time of year. It's the anticipation.

Other seasons are beautiful....and slow. Fall is 5:00 p.m. The work is done and I look forward to a rest. Winter IS the rest—a delicious snooze (after the holidays, of course) when I sometimes rouse myself to enjoy a book that puts me into green, botany dreams—books like Doug Tallamy's *Bringing Nature Home* or Don Leopold's gorgeous *Native Plants of the Northeast*.

Then comes March—perhaps 6:00 a.m. We see signs of awakening. Green shoots here, burgundy buds there. Right now I'm looking out the window at two geese who return to our pond year after year. Silly geese who some years lay an egg on our floating swim platform. And I see the wood duck couple who skid into our pond every year at this time. They don't nest, but seem to like us as a way-station.

In the meadow the willows are shining white and I hear tree frogs in the ditch.

INPAWS, too, is getting ready for an exciting season ahead. Our annual plant sale May 9 shows every indication of being the biggest and best ever. Field trips and volunteer opportunities abound, and in July Central Chapter is hosting a tour of spectacular local gardens abloom with native plants.

Welcome to spring.

—Nancy Hill



Spring peeper by Chris Carlsen in R.A. Ingraham, *Swimming with Frogs*.

Society for Ecological Restoration

The Society for Ecological Restoration International (SER) welcomes the Midwest Great Lakes Chapter as its newest regional chapter. Formed in March 2008, the chapter serves the six-state region of Ohio, Indiana, Michigan, Illinois, Wisconsin, and Minnesota.

A diverse set of organizations and individuals in the Midwest share an interest in ecological restoration, but they tend to focus on specific ecosystems, taxonomic groups, subregions, or professional disciplines. The new SER chapter aims to assist with the recovery and management of degraded ecosystems within the Midwestern and Great Lakes regions by:

- Promoting the science and practice of ecological restoration.
- Connecting local resources and partners by facilitating dialogue.
- Providing educational opportunities for interdisciplinary understanding of and interest in concepts and methods of ecological restoration for specialists and laypersons.
- Disseminating scientific and technical information.
- Assisting in the development of technical and ethical guidelines for ecological restoration.

The chapter's first annual meeting will be held April 24-25, 2009, at Marian College, Indianapolis. Their membership drive is on, and everyone with an interest in restoration ecology is invited to join. For details and an application form, visit www.ser.org/content/SERMWGL.asp.

Daubenspeck Community Nature Park, continued from page 1

and wildlife of the park in full color, along with a brief history and helpful map.

As the Trail Guide implies, the park indeed has trails—another thing that's not easy to tell from a drive-by. The tended grass trails traverse 15 acres of prairie and 8 acres of high-quality woods. Along the way are two enhanced wetlands complete with boardwalks, hand-made benches, an observation deck to see over the tall grass and flowers, signage with information about natural features, and an arched bridge over Alverna Creek—all built by volunteers.

How Does Your Garden Grow?

According to the Marion County Comprehensive Land Use Plan, Washington Township has the fewest park acres per capita of any township in Marion County. This is no surprise to residents who have seen their precious green space swallowed up by strip malls and apartments over the years.

In 2005, a "for sale" sign appeared on a rare, undeveloped 15-acre plot at 8900 Ditch Road. With developers already submitting their bids, a group of neighborhood volunteers mobilized support, including 1,000 petition signatures, and persuaded the land owners—the Metropolitan School District of Washington Township—not to sell. The volunteers formed a 501(c)(3) non-profit organization and signed a lease with the school board to create an



A mother and daughter team who live near the park pitch in planting native plugs.

educational conservation area dubbed Daubenspeck Community Nature Park.

To be sure, the "Daubenspeck" name wasn't chosen because it rolls off the tongue. It commemorates the original owner of the land, 93-year-old farmer Peter Daubenspeck, who donated this parcel to the township in 1960 for public use. The name ensures that the community-minded spirit of this generous gift is not forgotten.

In support of the venture, North Willow Farms Neighborhood Association, which owns the eight-acre woods, agreed to let their property be managed as part of the park.

Daubenspeck Community Nature Park operates completely by volunteer power, with no paid staff or offices. Volunteers comprise its working board, which does all the fundraising through individual donations, grants, and corporate support. Park improvements and maintenance are the work of an enthusiastic volunteer army of hundreds, from age two to eighty-plus.

DCNP has been holding three to four main volunteer events per year since the big kick-off in 2006. The kick-off was powered by 200 adult volunteers as part of a national day of service, sponsored by The Home Depot, CitiGroup, and others. INPAWS members were an important



Hundreds of students from area elementaries, middle schools, and high schools make their mark at the nature park. Photos by the author.

part of this day, especially lending their expertise and muscle to transplant wetland plants and remove invasive honeysuckle.

One especially memorable event was the first tree planting—on a cold, miserable, wet, muddy November day. Organizers hoped for at least 30 volunteers to brave the weather to get nearly 100 majestic trees and hundreds of potted shrubs provided by Keep Indianapolis Beautiful into the ground before winter. When 120 volunteers showed up, including many kids, the result was joyous, crazy, mud-covered, and very productive.

Bird-loving volunteers built and installed more than 25 bird houses, including specific models for bluebirds, martins, wrens, wood ducks, barred owls, and more. A dedicated team maintains and monitors the structures for new residents.

Most recently, volunteers have focused on enhancing the native tallgrass prairie with native seeds and plugs. Some plants come from rescues, some are donations left over from the INPAWS annual plant sale, and most come from native plant specialists Spence Restoration Nursery in Muncie, Ind. More than 5,000 plugs and 10 acres of seeds have been planted to date.

In 2008, Marathon Oil Pipeline began a prairie restoration planting in a separate 1-acre swath they clear cut through the park's woods, but work has not been completed as of this writing.

Next Steps

DCNP is still blossoming, literally and figuratively. Volunteers aim to add another 1,000 prairie and wetland plugs this spring, and will step up the battle against invasives. For example, IUPUI students, Kiwanis, and community helpers will plant rushes, sedges, and blue flag iris in the wetlands and begin removing invasive winter creeper euonymous that is taking over the woods.

More Eagle Scout projects are in the works as well. Building on the success of the recent creek bridge, Eagle Scouts are planning to improve access to the woods with much-needed bridges and boardwalk sections along the woods and prairie trails.

Board members are working to create educational programs that will drill down into specifics on topics of interest to the public. These one-day workshops will be fun, hands-on, and experiential, with something for a variety of ages, abilities and interests. Topics will include information on native species, controlling



A gorgeous patch of May apple along the woods trail seems miles from civilization but is only steps from the city.

invasives, enhancing wildlife, and conservation.

DCNP is seeking corporate, grant, and individual support for these and other future projects. Donations of stock and other saleable assets are also happily accepted and are fully tax-deductible. Donors are recognized on the park's website at www.daubpark.org.

The future looks bright for this beautiful corner of the city. Visitors come from all over Central Indiana and beyond to admire and pitch in. Official praise has come from the City-County Council, mayor, governor, MSDWT school board, Nora Community Council, Keep Indianapolis Beautiful, and more. The Home Depot gave this project its national "Building CommUnity" award.

This is a unique, rare, and much-needed native oasis, not just for wildlife, but for people. Visitors aren't just visitors, and you feel that the minute you set foot here. You are a vital part of the park.

For more information, email daubpark@hotmail.com or visit www.daubpark.org

Earth Day at Daubenspeck

Volunteers are invited to plant plugs and pull small honeysuckle sprouts on Saturday, April 18
9:00 a.m. to 1:00 p.m.

Me Talk Pretty

Mastering Latin Nomenclature and Pronunciation

Intimidated by those multisyllabic Latin plant names? Understanding why Latin names are used may make them more tolerable. Here are some principles to help you deal with them effortlessly.

Formal scientific names of plants and other organisms are given in Latin so that the language is international and unchanging. I can look at a paper or book in Japanese or Russian and still distinguish scientific names. While visiting my sister in Holland, I bought a wildflower identification book written in Dutch but illustrated with very nice photographs and Latin scientific names. Thus I could learn the plants and see their relationships with our North American flora.

Common names are important, and often carry historical information such as medicinal uses of plants, but they have limitations. For example, very rare plants may not have common names. Some plants share common names, and some plants have different common names in different parts of the country. The use of scientific Latin names overcomes these problems.

Pronunciation of Latin is much easier than English. All letters are pronounced; there are no silent vowels or consonants. The main trick is knowing where to place the emphasis. Most words have the emphasis on the next-to-the-last syllable; others may have the emphasis on the syllable before that. Take comfort in knowing that even professional botanists pronounce the same names differently. It doesn't really matter.

Here's another trick: Think about what a Latin term means. Often the term relates to some obvious feature of the plant. A botanist describing a new species must follow international rules of botanical nomenclature. The new name given the plant must be an original combination of genus and species names, but the choice of a specific epithet (or species name) is entirely up to the investigator. The name usually reflects a physical trait of the plant,

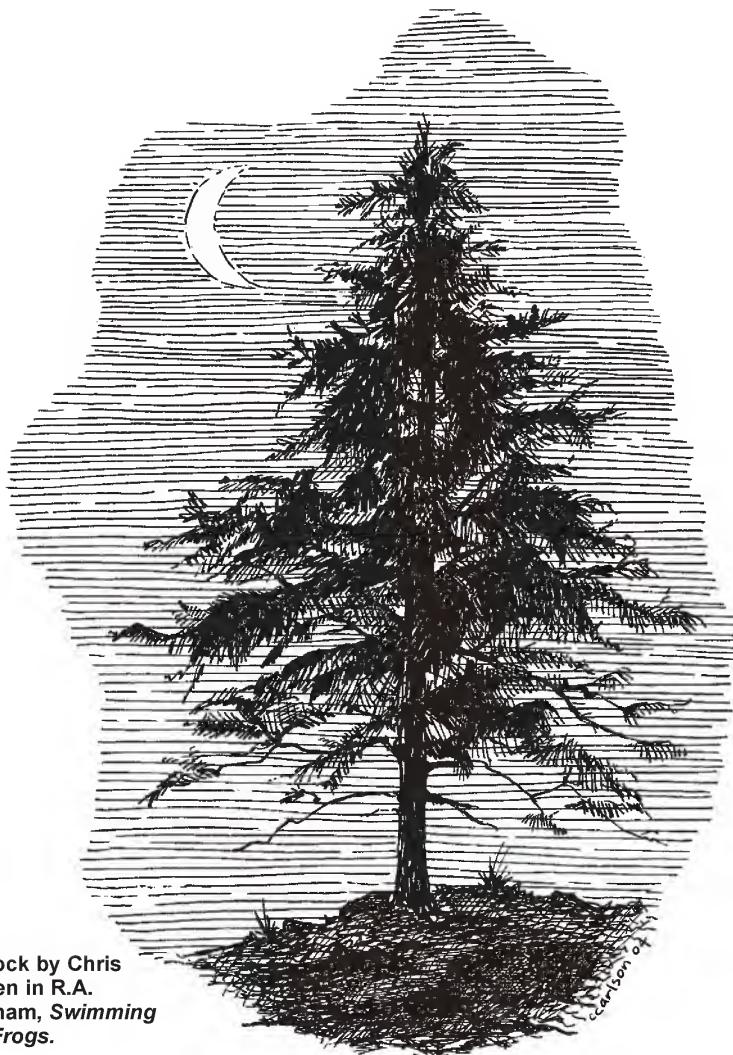
but it may indicate where the plant was first collected, the geographic area where it grows, the name of the person who first collected it, or someone who has done a lot of work with related plants. Personal names are "latinized," and generally the genus and species names end with matching masculine (-us) or feminine (-ia) endings. Some terms are borrowed from Greek and latinized.

The following list, culled from several references, shows the meanings of Latin terms common in the plant names of Indiana natives. We can use these terms to examine names for some oaks. All oaks are in the genus *Quercus*. White oak is *Quercus alba*, scarlet oak is *Quercus coccinea*, and red oak is *Quercus rubra*. However, *Quercus nigra* is water oak, and black oak is *Quercus velutina*, apparently because of velvety hairs on the undersurfaces of the leaves.

acaulis – stemless
acerifolius – maple-leaved (maple = *Acer*)
alatus – winged
albus – white
alternifolius – alternate-leaved
americanus – of America
amplexicaulis – clasping the stem
angustifolius – narrow-leaved
annuus – annual
apetalus – without petals
aquaticus – aquatic
arborescens – tree-like
arvensis – of cultivated fields
aureus – golden
bicolor – two-colored
biennis – biennial
borealis – northern
brevis – short
caespitosus – tufted
calcareus – chalky, limy
campanulatus – bell-shaped
canadensis – of Canada
canescens – grayish, becoming gray
cardinalis – cardinal-red
ciliatus – ciliated, like an eyelash
clavatus – club-shaped

coccineus – scarlet
communis – growing in common
concolor – uniform in color
contortus – twisted
convolulus – climbing
cordatus – heart-shaped
crispus – curled
cuneifolius – wedge-shaped leaves
debilis – weak, disabled
decumbens – reclining
decurrens – extending downwards
deltoides – triangular
depauperatus – stunted
diffusus – loosely branching
digitatus – finger-shaped
distichus – two-ranked
divaricatus – spreading
echinatus – spiny
edulis – edible
effusus – loose-spreading
elegans – elegant
ellipticus – elliptical
erectus – upright
ericoides – heath-like
filiformis – thread-like
fistulosus – hollow, cylindrical

flabelliformis – fan-shaped
flavens – yellowish
flexuosus – flexible
foetidus – having a bad odor
foliosus – leafy
fragilis – fragile
fragrans – fragrant
fruticosus – shrubby
giganteus – very large
glabratus – smooth
glanulosus – glandular
glomeratus – dense clusters
glutinosus – gluey or sticky
gramineous – grassy
graminifolius – with grass-like leaves
grandiflorus – with large flowers
grandifolius – with large leaves
herbaceous – not woody
heterophyllus – with several shapes
 of leaves
hirsutus – hairy
hsipidus – bristly
humilis – dwarf
hyemalis – of winter
laciniatus – cut, torn
lactatus – milky



Hemlock by Chris Carlsen in R.A. Ingraham, *Swimming with Frogs*.

laevigatus – smooth
lanceolatus – lance-shaped
lancifolius – lance-shaped leaves
latiflorus – broad-flowered
laxiflorus – loose-flowered
leucanthus – white-flowered
linearifolius – with long, slender leaves
luteus – yellow
lyratus – lyre-shaped
macrophyllus – large-leaved
maculatus – spotted
major – larger
marginalis – marginal (on the edge)
marilandicus – of Maryland
maritimus – growing near the sea
microcarpus – small-fruited
microphyllus – small-leaved
mirabilis – wonderful
mollis – soft
montanus – of the mountains
multiflorus – many-flowered
nervosus – nerved (prominent longitudinal vein)
niger – black
nitens – shining
nobilis – noble, or well known

noctiflorus – night-flowering
novae-angliae – of New England
noveboracensis – of New York
nudicaulis – naked-stemmed
nutans – nodding
occidentalis – western
odoratus – with an odor
officinalis – a formally recognized medicinal
orientalis – eastern
palmatus – palmate
parviflorus – small-flowered
parvifolius – small-leaved
patens – spreading
perennis – perennial
pratensis – growing in meadows
procumbens – prostrate
pubescens – with soft hairs, becoming downy
pumilus – dwarf, small
punctatus – marked with dots
purpureus – purple
pusillus – insignificant or very small
quadrangularis – four-angled

ANOTHER VIEW

The Language of Species

You want to make
 a convincing statement
 but all you can see
 is the outline of a forest.

Wait. Don't speak. Move in.
 Stand there as long as it
 takes for the dark to lift
 from your shoulders and light
 to flicker on your forehead.

Look up. Watch a single tree
 take shape and rise. Allow
 the bark of the trunk time
 to declare its texture.
 Watch a leaf push forth
 as a pattern. Listen to breezes
 wash through the boughs.
 Follow cuttings as they sprinkle
 down through layers of leaves.
 Trace the stream back to the source:
 hungry fox squirrel or blackbird.

Now say what you see.
 Say shagbark hickory.
 Say pig hickory or walnut.
 Say beech or black gum.
 Say white or red oak.

When you can speak
 the language of the species
 others may listen and believe.

—Norbert Krapf, Indiana Poet Laureate and INPAWS Member

From *Bloodroot: Indiana Poems*, Quarry Books, 2008. Available from Indiana University Press, www.iupress.indiana.edu, 1-800-842-6796.

For more about the author, visit [www.krapfpoetry.com](http://krapfpoetry.com).

Continued page 8

Latin Nomenclature, continued

quadrifolius – with four leaves
racemosus – in racemes
radicans – rooting
recurvus – curved back
repens – creeping
reptans – crawling
resinosus – resinous
reticularis – net-like
rigidus – stiff
roseus – rose-colored
rotundifolius – round-leaved
rubrum – red
sativus – cultivated
scoparius – broom-like
semperfivens – evergreen
sessiliflorus – flowers without stems
sessilis – apparently stemless
silvaticus – pertaining to woods
simplex – unbranched
speciosus – beautiful
spectabilis – spectacular, visible
spinosus – with spines
stamineus – with prominent stamens
stoloniferus – with stolons
stramineus – straw-colored
strictus – stiff, upright, drawn together
stigosus – with stiff bristles
suffruticosus – shrubby
sylvestris – growing in the woods
tenuiflorus – slender-flowered
tenuifolius – slender-leaved
tenuis – slender, thin
ternatus – arranged in threes
tinctorius – used for dyeing
tomentosus – felty
tortuosus – twisted, winding
trifoliatus – three-leaved
tuberosus – with tubers
umbellatus – with umbels
uniflorus – one-flowered
velutinus – velvety
venosus – with veins
vernalis – spring flowering
villosus – with soft hairs
virgatus – twiggy
virginianus, virginica – of Virginia
vulgaris – common
zebrinus – zebra-striped

This article reprinted from INPAWS News, Winter 1994.

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GROWING YOUR OWN

Virginia Bluebells *Mertensia virginica*

Gene E. Bush, Munchkin Nursery

Virginia bluebells may be common, but that familiarity does not breed contempt in my garden. Other wild-flower enthusiasts and gardeners must agree as well, for Munchkin Nursery has sold out of these each of the past fourteen years.

Mertensia virginica is usually found in drifts along streams or areas with a bit more moisture, especially during early spring. I frequently see them in floodplains and under water for short periods of time. We have a natural drainage ditch etched through the middle of our property. Each edge of the ditch has drifts of bluebells hundreds of feet long where seeds have followed the downhill flow of water.

However, bluebells do not require extra moisture to thrive. In my garden they form colonies in good garden soil and emerge from among rocks on hard clay with equal ease. Moisture from normal seasonal rains during their growing cycle seems to satisfy their needs. All to say, Virginia bluebells are forgiving garden perennials, and easily grown wildflowers for shade.

Foliage starts each season by poking purple-black noses through ice and snow around the last of February and first of March as if to sniff the winter air. Once

they decide the timing is right, foliage quickly emerges. Succulent stems up to two feet or more in height quickly fill out with pale green oblong, alternate leaves.

Middle to end of March, blooms are on display above the foliage in colorful clusters. Buds are soft pink, changing over to blue trumpets about an inch in length. Since the trumpets tend to hang downward they get the name of bell. The overall effect is of a bi-colored bloom with the pink buds and blue flowers. I have seen three different bloom color variations in the wild. An all-white form with no hint of blue or pink, an all-blue form, and a pink form that does not turn blue with age. I understand that sports are not all that rare in large drifts of bluebells, but to date I do not see these sports appearing for sale in catalogs.

Once blooms are pollinated and begin to form seeds, stems lengthen and arch over to sow seeds away from the parent plant. By mid-July the plants melt away above ground to become black storage roots waiting for the next spring.

Two of my favorite companion plants are merrybells (*Uvularia grandiflora*) and wood poppy (*Stylophorum diphyllum*). Both bloom in shades of soft yellow, creating a classic blue-and-yellow combination. Although bluebells go dormant early, the other two woodland perennials are good foliage plants through heavy frost. Wood poppy also blooms on and off through summer and fall, especially if deadheaded.

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◀ Virginia bluebells mingling with European trout lily (*Erythronium dens-canis*) in the gardens at Munchkin Nursery. Photo by the author.

New INPAWS Members

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Nick Zalzel
Ben Reinhart & Shaena Smith

PHENOLOGY PRIMER

Growing Degree Days

As many a botanizer has discovered, the calendar is not always a reliable indicator of when a particular wildflower will bloom. Phenologists all over the U.S. are gathering data on such aspects as leafing out, bud break, and bloom time of various plants to track changes in weather patterns from year to year—a potential indicator of climate change—but I'm intrigued by the potential of "degree days" to help us predict these occurrences. The concept of growing degree days (GDD), borrowed from the heating/cooling degree days used in the home heating industry, has been especially useful in Integrated Pest Management, for it enables growers to monitor for plant pests and accurately time the application of controls.

The principle behind GDD is this: Insects, being cold-blooded, depend upon the warmth of their surroundings to stimulate their growth and development. As the weather warms in the spring, growing degrees accumulate until there have been enough warm days for larvae to emerge from the soil, for cocoons to hatch, etc. The same accumulation of growing degrees coincidentally stimulates the growth of the host plants that will feed the emerging insects.

Here is how a gardener might use this information: at 205 GDD, signalled by forsythia being in full bloom (usually late April), you could scout for leafrollers feeding on fruit trees and Colorado potato beetles emerging to feast on potato plants. At 345 GDD, when redbuds are in full bloom, you could look for cucumber beetles, which spread bacterial wilt. At 1565 GDD (sometime in July), you would expect to see second-generation pine needle scale crawlers emerging, and so on. Imagine the possibilities if you were to track phenological events in your own back yard using GDD! (Ohio residents can look up GDD information for their zip code at <http://www.oardc.ohio-state.edu/gdd/>)

The determination of GDD begins with a "base temperature" of 50° F. This is an estimate of the physiological threshold of an organism. For example, we know that woody plants start growing at a temperature between 45° and 55° F, and entomologists are determining threshold temperatures for specific insects through lab and field research. Temperatures above the threshold support growth and development.

For each day that the average temperature is one degree above the base temperature, one degree day accumulates.

Growing degrees for a 24-hour period (GDD) are calculated by this formula:

$$\text{Average temperature} - \text{Base temperature}$$

where

$$\text{Average temperature} = \text{Maximum temperature} + \text{Minimum temperature} / 2$$

$$\text{Base temperature} = 50^{\circ} \text{ F}$$

So, if on Monday the maximum temperature is 75° F and the minimum temperature is 45° F, the GDD for Monday is 10, calculated as follows:

$$(75 + 45)/2 = 120/2 = 60$$

$$60 - 50 = 10$$

If the average temperature is equal to or less than the base temperature, no degree days are accumulated.

For this system to work, the maximum and minimum temperatures need to be recorded every day from March 1 to September 30. Early in the season, the growing degree days will accumulate slowly. As temperatures rise they accumulate faster.

Growing degree information courtesy of Michigan State University Extension and Washtenaw Cooperative Extension Service The Gardener's Timetable. See also http://www.maes.msu.edu/nwmihort/gdd_calculations.pdf. Find a list of phenological indicators and emergence of insect pests at <http://wihort.uwex.edu/Phenology.html>.

INPAWS Award Funds Public Education

Colleen Craven-Becker, Past President
Southern Indiana Botanical Society

INPAWS graciously awarded a \$400 grant to the Southern Indiana Botanical Society in 2008. The purpose of the grant money was to make available to the public educational literature on the woodland natives planted in our garden at Mount Saint Francis Retreat Center in Floyd County near Louisville. A brochure written by INPAWS member Maggie Oster has been printed. The brochure includes information on each of the plants in the garden as well as the value of using native plants in the home landscape. To display the brochure, a waterproof literature holder has been constructed and installed in the garden.

The Southern Indiana Botanical Society was established in 1994 by a group of local gardeners to "increase the awareness and appreciation of gardens and native landscapes, to provide educational programs on gardening



and environmental concerns for children and adults, and to create public gardens that will enhance the beauty of the area and be an attraction for area residents and people outside the community."

As part of the goal to create public gardens, SIBS obtained a 99-year lease on approximately 1½ acres at Mount Saint Francis, a 410-acre wildlife refuge. A path was paved that meanders through woods and fields

down to a lake. In 2007, the SIBS board of directors voted to install new gardens along the path that fit with the spirit of its mission statement, the mission of the Mount Saint Francis Wildlife Sanctuary, and the natural setting.

Working with Marilyn LeBourveau of Nature's Grace, the native woodland wildflower garden was designed, and the initial planting of the woodland natives occurred in the fall of 2007, with additional plantings in the fall of 2008. All the plants were donated by INPAWS members JoAn Riley and Gene Bush of Munchkin Nursery. A partial list of the 20-plus species of perennials and shrubs planted in the garden includes: royal catchfly, Jacob's ladder, Virginia bluebells, bellwort, white baneberry, Allegheny spurge, common witch-hazel, and ninebark.



In addition, SIBS has begun the process of establishing a native prairie in an old field that is also found along the paved path. Margaret Shea of Dropseed Nursery in Louisville, Kentucky, is working with SIBS on this. The area was sown in the late fall of 2007 with seed grown by Shea as well as other seed donated as a "seed bank" by the Indiana Department of Natural Resources. SIBS also conducts invasive control workdays to remove wintercreeper, honeysuckle, and multiflora rose along the path in the woods.

The Southern Indiana Botanical Society invites INPAWS members to visit and enjoy our woodland garden. It is still in its infancy, but our plan is to continue to expand the garden, with the hope that the wildflowers will self-sow and repopulate the adjoining woods.

For more information on our woodland garden or the Southern Indiana Botanical Society, contact Colleen Craven-Becker at ccraven-becker@purdue.edu or 812-948-5470.

About Mount Saint Francis

Mount Saint Francis is a Franciscan monastery that seeks to "foster spiritual, personal, educational, and artistic growth" by offering people of varied backgrounds a sacred space within a natural setting in the spirit of St. Francis of Assisi. The property is managed by the Mt. St. Francis Sanctuary as a conservancy and retreat center where conscious efforts at ecological development help maintain a beautiful place not only for wildlife but also for human life to appreciate serenity and nature.

Something for Everyone

INPAWS 2009 Plant Sale and Auction Preview

Saturday, May 9

Plant and book sale 10:00 a.m. to 12:30 p.m.

Auction begins 11:15 a.m.

Trinity/St. Richard's Church & School

3243 N. Meridian St., Indianapolis, IN 46208

Spring is here again, and passionate gardeners and naturalists everywhere are springing into action, preparing the soil, weeding, planting, edging, and planning excursions to see Indiana's forest wildflowers. For INPAWS, springtime also means the annual Native Plant Sale and Auction. Please join us at the plant sale this year—we offer several ways to participate.

For Newcomers: Plants, books, and native plant camaraderie

Whether you're starting your native plant garden or just want to incorporate more native plants into your landscape, the plant sale is a great place to find native plant material that is not readily available from most plant nurseries. Woodland, prairie, wetland plants, trees, and shrubs will be available as well as books related to native plants and wildflowers.

In addition, the plant sale offers a wonderful opportunity to meet other native plant enthusiasts and share information. Best of all, proceeds from the sale support the INPAWS mission.

For Veterans: Plant auction, volunteering, and plant donations

If you've attended the plant sale before, you've enjoyed the entertaining banter at the auction and the knowledgeable comments of experts like Kevin Tungeswick, Hilary Cox, and Sue Nord Peiffer. Because the plants being auctioned change every year, the discussion is always informative.

If you're an experienced plant sale shopper and native plant gardener, consider volunteering this year. Volunteers are needed for set-up on Friday evening and for a number of different plant sale activities on Saturday morning. Native plant knowledge is helpful but not necessary.

Plant donations are needed from established gardens and supportive businesses. Home gardeners should transplant self-seeded or spreading plants two weeks or a month before the sale to give the plant time to adapt to its sale-ready potted environment. Businesses wishing to donate native plants, trees, shrubs or related gardening items will be recognized as a sponsor of the event.

For more information about volunteering or donating, contact Melissa Moran at 317-295-2021 or moranfam@gmail.com, or Ron Jackson at 317-782-3724 or ronjack6@sbcglobal.net

*****New! Special Incentives for Auction Bidders*****

1. Buyers who go the distance: If you come from outside of Marion County and beyond its contiguous counties (Boone, Hamilton, Hancock, Shelby, Johnson, Morgan, or Hendricks), your name will be placed into a drawing to receive a \$10 credit toward your auction purchases.

2. Carbon busters credit: Carpools of three or more attendees who drive together to the plant sale will receive a \$10 credit toward their auction purchases.

Nine Hundred Miles from Home, Part 3

Barbara E. Plampin, PhD, Shirley Heinze Land Trust

This is the third installment of a series about plants that migrated to the Great Lakes region eons ago from the Atlantic and Gulf Coasts.

Some Coastal Plain disjuncts (CPs) like sundews (*Drosera* spp.) practice carnivory with their leaves to supplement their diets in nutrient-poor damp sands and bogs.

However, two CPs—jointweed (*Polygonella articulata*), an annual, and false heather (*Hudsonia tomentosa*), a perennial—adapt their leaves in another fashion to live successful vegetarian lives in parched windblown sands, found, in my experience, south of the Lake Michigan beaches and foredunes.

Both thrive in blowouts (natural), and false heather flourishes in tire tracks (man-made), habitats with little competition. Reduced, scaly leaves pressing flat against stems and branches promote survival from heat, blowing sand, drought, and, with false heather, cold. In late spring, false heather displays low mats of clear lemon yellow stars above its stiff, scaly stems and branches. Because its thread-like scales soon drop, jointweed (whose joints at intervals on stems and branches show its membership in the knotweeds) often seems to lack chlorophyll. In late summer, the 20-inch (or less) plants somewhat resemble sea fans covered in numerous, minute white-to-pink-to-reddish flowers. Sometimes enough “fans” bloom in a depression to give the appearance of a tidal pool at low tide.

Truly bold leaves characterize the arrow arum (*Peltandra virginica*), a jack-in-the-pulpit cousin, which can grow in huge colonies in shallow water. The up-to-30-inch long leaves resemble those of common arrowhead (*Sagittaria latifolia*) but have pronounced mid-veins and are feather rather than parallel veined. Something to watch for: John Eastman says that in fall the tapering spathe turns upside down and may drill itself into the mud, thus “planting” the jelly-coated seeds. These seeds also float to colonize new spots.

My favorite CP is summer-blooming meadow beauty, aka deer grass (*Rhexia virginica*) with its “normal” one-to-two-inch somewhat egg-shaped leaves. A colony of 12-to-18-inch plants, with intense yellow “rack of antlers” stamens centered in purplish-pink four-petaled flowers, proves that calendar art can be true to life. Swink and Wilhelm write, “One of our most beautiful local floristic sights consists of mass displays of this species, especially in late July, along sandy roadsides south of Tefft in Jasper County.”

Some Books

Eastman, J. *The Book of Swamp and Bog*. Stackpole Books, 1995.
 Swink, F.S. and G.S. Wilhelm. *Plants of the Chicago Region*. Fourth edition. Indiana Academy of Science, 1994.
 Yatskievych, K. *Field Guide to Indiana Wildflowers*. Indiana University Press, 2000.



Rhexia virginica L., variously known as meadow beauty, deer grass, and handsome Harry. From Britton, N.L., and A. Brown. 1913. An illustrated flora of the northern United States, Canada and the British Possessions. Vol. 2: 583.

NOW AVAILABLE ONLINE

Popular INPAWS Landscaping Brochure Updated

At gardening shows where INPAWS has a presence, people always make a beeline for the “Landscaping with Plants Native to Indiana” brochure.

Last summer and fall, Hilary Cox, Wendy Ford, and Nancy Hill revised the brochure with broad input from a committee of interested INPAWS members. Their aim was to present native plants likely to be available in retail garden centers and mail order catalogs, and to organize them by plant community and uses in the home landscape.

The new brochure is downloadable in 8-1/2 x 11-inch format from www.inpaws.org. This online version will be updated regularly as we prepare for the next printing of the brochure.

Focus on Kids

Letha's Fund Seeing Action

In the Spring of 2008 INPAWS launched an initiative to engage children with Indiana's wild places.

In honor of Letha Queisser, known as the Wildflower Lady and long-time member of INPAWS, the Letha's Youth Outdoors Fund was established to help those groups who would not otherwise be able to afford field trips. A second focus was to support youth follow-up projects that emerge from their experiences with nature.

These plans were the product of the INPAWS Youth Outreach Committee with members Dan Anderson, David Benson, Karen Hartlep, Tom Hohman, Ruth Ann Ingraham, Chris Plews, David Queisser, and Donovan Miller, Chair.

In the summer and fall, we made a concerted effort to publicize the availability of the fund, and by late February 2009, six applications had been received from schools as far north as Goshen and south to Bloomington. We anticipate more applications as spring comes upon us.

Applicants have been seeking funding for transportation and, in some instances, naturalist/field trip leadership fees. The group sizes are as high as 150 students to a single classroom of 40, and requests have ranged from \$100 to a high of \$520.

In the inception phase, the committee anticipated primarily transportation costs. Review of the requests to date has led the committee to include the naturalist fees as appropriate where negotiated.

It is likely that need and demand for this program will exceed budgeted funds. In fact, the initial allocation almost certainly will have been exhausted before the time of this publication.

—Donovan Miller

Donate to Letha's Youth Outdoors Fund

Donations of any amount are sought. Please send a check, made out to INPAWS, to P.O. Box 30317, Indianapolis, IN 46230-0317, noting "Letha's Fund" in the comment line.

Programs for Members' Children, Grandchildren?

Central Chapter is considering a collaborative effort with Marion College Ecolab for a special kids program for our members. The idea is in the formative stages and depends on there being enough interest among the membership. At least four types of programs are being considered:

1. Tour of the Ecolab grounds and presentation on the restoration work that has been done, with a later opportunity to participate in planting native plants in restored areas (program similar to those hosted by INPAWS for other kids groups).
2. Same tour, followed at a later date by an opportunity to participate in seed collection from plants on the grounds.
3. Program built around the beaver population at the Ecolab. This would be a new program that has not been developed yet.
4. Nature photography for kids. Kids would be given lessons in how to take good nature photographs. Participants would have to provide their own digital cameras. This is also a new program that has not been developed yet.

Anyone interested in pursuing such programs is asked to contact Tom Hohman at hohmantr@aol.com or 317-831-1715.

CILTI Launches Hank Heron Conservation Club

Central Indiana Land Trust promises outings and adventures along with a little plush blue heron and a quarterly newsletter when you sign up kids ages 5 and older for the club, whose very cute mascot is Hank Heron. The newsletter introduces Indiana plants and animals and conservation themes—with coloring pages, even. More information at www.conservingindiana.org.



Planting plugs at Daubenspeck Community Nature Park. Photo by Deb Ellman.

FIELD NOTES

Appalachian Forest School

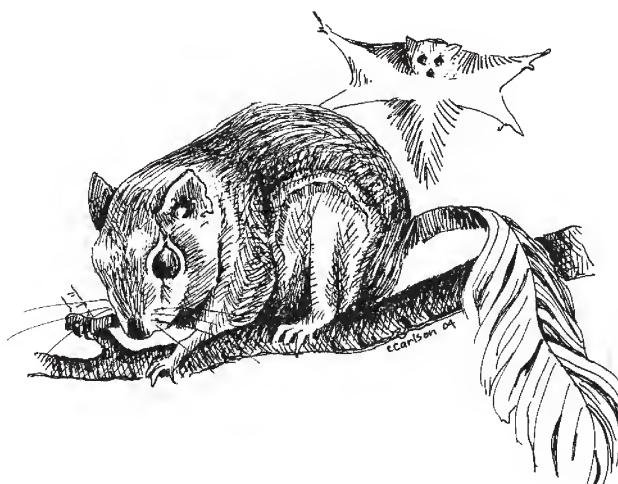
Those who reside in the Eastern third of the United States live on land once occupied by the temperate broadleaf forest biome—the most disturbed of the earth's fourteen biomes. As a consequence of modern lifestyles and technologies, most people know more about the tropics than the forest of their own backyards. They neglect the magic presence of what could serve as a unifying forest heritage.

The Appalachian Forest School, a new non-profit venture, aims to "re-romance" the East and make the native forest a more conscious part of our lives. It offers 5-7 day courses led by expert naturalists and field researchers featuring uniquely holistic content that is scientific, conceptual, cross-disciplinary, field-oriented, and global in perspective.

The first Appalachian Forest School course took place in March. Participants traveled to the southern boundary of the temperate forest—the Panhandle of Florida—to witness the arrival of the forest's first spring flowers, kayak historic ivory-billed woodpecker habitat, learn about the rare Torreya pines, explore crystal clear springs, witness the giant tupelo swamps and pine flatwoods of southern ecosystems, and learn about the Southeast's native carnivorous plants.

Find complete course listings at www.hIGHLANDSSANCTUARY.ORG/WE/AFS.HTM. For occasional updates via e-mail, sign up at reservations@highlandssanctuary.org.

Squirrel by Chris Carlsen in R.A. Ingraham, *Swimming with Frogs*.



Freebies on the Web

Here are some web resources that may interest Indiana wildflower enthusiasts.

- Mounds State Park, near Anderson, Indiana, has remarkable plant diversity that is documented in a series of handy tri-fold fliers. You can download and print your checklists from <http://www.taylor.edu/academics/acaddepts/ees/mounds/index.html>
- On the Taylor University website you can find an introduction to the sedge family (Cyperaceae). Later this year a book-length guide to the group will be available from the Indiana Academy of Science Press. <http://www.taylor.edu/academics/acaddepts/ees/sedges/index.html>
- The Field Museum in Chicago is gradually producing colorful Rapid Guides to select groups of organisms in the greater Chicago region. In addition to guides to several animal groups (amphibians, dragonflies, freshwater mussels) they have two plant guides. One covers the genus *Carex* and the other native and naturalized shrubs. http://fm2.fieldmuseum.org/plantguides/rkg_intro.asp?zone=temperate

All these resources are free. Enjoy.

—Paul Rothrock

Learning Adventure in Ohio

So what's spring like in neighboring Ohio? "The most spectacular views this side of the Great Smokey Mountains" are promised if you sign up for Flora-Quest's three-day hands-on learning adventure, May 1-3, 2009, focusing on plants and natural areas.

Some of Ohio's most gifted botanists and naturalists will lead expeditions into Shawnee State Park and the Edge of Appalachia Preserve System, which boast upwards of 1,000 species of native plants out of about 1,900 natives in all of Ohio.

Participants will attend workshops and hear educational speakers. Special hikes are scheduled for birders as well. The lodge facilities in Shawnee State Park are top-notch and nearby cabins and camping are available with special discounted rates for attendees.

Visit www.flora-quest.com for details and registration information.

New: Invasives Field Guide from MIPN

As part of a collaborative effort by many, the Midwest Invasive Plant Network has created a field guide to assist with the identification of common invasive plants found in the Midwest.

The full-color guide is 4 1/4" x 5 1/2", on heavy, glossy paper and is spiral bound. Twenty-seven of the worst offenders are profiled, from *Ailanthus altissima* (tree-of-heaven) to *Typha angustifolia* (narrow-leaved cattail).

Copies are available from MIPN: one free to MIPN members (\$20/yr), also available in bulk for \$4 to \$6 depending on quantity (less for members). Contact Ellen Jacquart at 317-951-8818 or ejacquart@tnc.org to place an order.

For more about MIPN activities visit <http://mipn.org/>.

F I E L D N O T E S

Central Chapter Offers Range of Programs

Central Chapter's varied schedule of events for 2009 began in March with a presentation on green roofs by Barth Hendrickson of Browning Day Mullins Dierdorf Landscape Architects. Members can look forward to the following events:

May 2 Tour of Clegg Botanical Garden (Lafayette, Ind.) led by Jim Patterson. Carpools will be organized. (INPAWS contact: George Peregrim, g.peregrim@comcast.net)

May 23 Invasives removal at Woollen's Gardens, a nature preserve of Indy Parks located on the northeast side of Indianapolis, near Fall Creek. (INPAWS contact: Tom Hohman, hohmantr@aol.com)

June 20 Tour of Hamilton County Urban Conservation Association native planting for subdivision common area and church native plant landscaping, led by Dan McCord. (INPAWS contact: George Peregrim g.peregrim@comcast.net)

July 18 Tour of Native Plant Gardens of Indianapolis. Add your garden to the tour! (INPAWS contact: Nancy Hill, nanhill86@earthlink.net)

An additional invasives removal work day will be scheduled at Gene B. Glick Nature Preserve, owned by Central Indiana Land Trust. Plans are underway to form an invasives removal work group, which will perform invasives removal on a more regular basis. Members of this group will have an opportunity to learn more about the best methods of doing this so that they can also advise others. Anyone interested in being a part of this work group should contact Tom Hohman at hohmantr@aol.com or 317-831-1715.

See also Programs for Members' Children, page 13.

Greet the Public for INPAWS

Volunteers are needed to staff the INPAWS booth on Earth Day (April 25) and at Orchard in Bloom (May 1-3). Contact Dan & Sophia Anderson at 317-849-3105 or danjand1@sbcglobal.net.

Coming Up

Saturday, April 25
INPAWS Hike in Allee Woods (Parke County) led by Dr. Amanda Ingram, Wabash College

Saturday, May 9
INPAWS Native Plant Sale and Auction, St. Richard's School Gym, 3243 N. Meridian Street, Indianapolis, 10:00 a.m. to 12:30 p.m.

Saturday, May 30
INPAWS Hike in Big Oaks National Wildlife Refuge (Jennings County) led by Mike Homoya and Roger Hedge

Saturday, June 27
INPAWS Hike in Swamp Angel Natural Preserve (Noble County) led by Beth Mizell and John Ervin

Saturday, July 25
INPAWS Hike in Fisher Oak Savanna Nature Preserve (Jasper County) led Kevin Tungeswick and Gus Nyberg

Saturday, August 29
INPAWS Hike in Yuhas Woods (Randolph County) led by Dr. Don Ruch and Dr. Bryon Torke

Saturday, November 7 or 14
16th Annual INPAWS Conference, Indianapolis. Details TBA.

Watch for announcements of INPAWS events and field trips in the mail, via e-mail, and at www.inpaws.org.

"We abuse land because we regard it as a commodity belonging to us. When we see land as a community to which we belong, we may begin to use it with love and respect."

—Aldo Leopold, *A Sand County Almanac* (1949)

What To Plant?

It's been a few months since we heard Professor Doug Tallamy speak on how to sustain wildlife in our gardens, and I'm still mulling over the compelling message that we gardeners have a role to play in saving wildlife species. Here's my thought process:

Nature has assigned to the lowly insects the essential work of converting the sun's energy captured by plants into protein that feeds the entire food chain. So if I take seriously the job of increasing natural habitat and biodiversity, I need to plant at least a few natives that promise to feed my insect friends. But which natives should I plant? How can I make the most of my nursery dollar?

Take trees and shrubs, for instance. I know that Tallamy's U. Delaware graduate students are painstakingly counting butterfly and moth caterpillars on different woody plants in the Brandywine Valley to bring us the science behind his message. They've come up with a list of woody plant genera and how many insect species each genus supports (both native and non-native). When we rank order that list, the top twelve look like this.

<i>Quercus</i>	oak	532
<i>Prunus</i>	plum, cherry, chokecherry	456
<i>Salix</i>	willow	455
<i>Betula</i>	birch	411
<i>Populus</i>	cottonwood	367
<i>Malus</i>	crabapple	308
<i>Acer</i>	maple, boxelder	297
<i>Vaccinium</i>	blueberry	294
<i>Alnus</i>	alder	255
<i>Carya</i>	hickory, pecan, pignut	235
<i>Ulmus</i>	elm	215
<i>Pinus</i>	pine	201

Interesting, but are these right for my yard in central Indiana? Consulting Mike Homoya, our state botanist, I learn that right away I can eliminate *Vaccinium* from consideration (wrong soil where I live) and *Alnus*, *Betula*, and *Pinus* rarely occur naturally in my region.

So the genus tells only part of the story. The lesson is, I need to select species that occur naturally where I live; those are the ones that will have coevolved with the local fauna. (In fact, non-native species of some insect-friendly genera can be quite invasive.)

For contrast with the Tallamy top twelve, I look up some of my favorite ornamental natives in the list:

<i>Crataegus</i>	hawthorn	168
<i>Amelanchier</i>	serviceberry	124
<i>Cornus</i>	dogwood	118
<i>Viburnum</i>	arrowwood	104
<i>Hamamelis</i>	witchhazel	63
<i>Rhus</i>	sumac	58
<i>Thuja</i>	arborvitae	50
<i>Physocarpus</i>	ninebark	41
<i>Ilex</i>	holly, inkberry, winterberry	39
<i>Liquidambar</i>	sweetgum	35
<i>Magnolia</i>	magnolia, sweetbay	21
<i>Cercis</i>	redbud	19
<i>Taxodium</i>	bald cypress	16
<i>Lindera</i>	spicebush	11
<i>Aronia</i>	black chokeberry	6
<i>Itea</i>	sweetspire	0



Some of these rank pretty low in terms of insect species supported, but as Mike points out, a reason for the low numbers could be that these genera include fewer species than those in the top twelve. I know these ornamentals do well where I live, and they feed at least some of my insect friends (too bad about *Itea*!). I know I have much yet to learn about all this. In the meantime, I can't help scouting my back yard for a place to put at least one oak.



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Public Nuisance!

The Joys—and Risks—of Landscaping with Native Plants

Fiona Solkowski, Urban Gardener

Eight years ago I bought my first home, a wonderful old house in the Fountain Square neighborhood of Indianapolis.

When I moved in during the spring of 2001, the landscaping consisted of two overgrown cedar trees, three yucca plants, grass, bare dirt, and a weedy privet hedge in front of the vacant lot next door. With many donations of plants from friends and family, I quickly began putting in some small flower beds around the foundation. I also felled one of the big cedars that completely blocked the front of the house and put in a tiny vegetable and berry garden in the back yard.

As the first growing season ended, I started to formulate the grand plan for the focal point in my landscaping—a wonderful bed of native prairie plants in the front yard.

Before moving to Indianapolis, I had spent my work days at natural areas in Illinois



and Indiana, doing prairie habitat restoration. With my new desk job at The Nature Conservancy, I really wanted to have a little bit of the native prairie that I love so much close to my home.

So before spring rolled around again, I did some research into the landscaping restrictions outlined in the Revised Code of Indianapolis and Marion County. In Chapter 731-219 b (2) a-c, the code allows for landscaping in front yards. In fact, except for paving or gravel for access from the house to the street, it requires that the rest of the front yard must be landscaped with grass, shrubbery, trees or hedges, or other similar and suitable vegetative ground cover materials.

Additionally, the code permits the growing of vegetables, grasses, fruits, flowers, shrubs, vines, and trees in any yard. There are also some restrictions about the

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INPAWS JOURNAL is published quarterly for members of the Indiana Native Plant and Wildflower Society. Material may be reprinted with the permission of the editor.

All are invited to submit articles, news items, and event postings of interest to our membership. Acceptance for publication is at the discretion of the editor. INPAWS welcomes opposing viewpoints.

Please submit text and photos via e-mail to wwford@comcast.net or via land mail to INPAWS JOURNAL, 6911 Cabernet Way, Indianapolis IN 46278.

Submission deadlines for specific issues are as follows:

Spring
February 23 for April 1 mailing

Summer
May 23 for July 1 mailing

Autumn
August 23 for October 1 mailing

Winter
November 23 for January 1 mailing

INPAWS Mission

To promote the appreciation, preservation, conservation, utilization and scientific study of the flora native to Indiana and to educate the public about the value, beauty, diversity, and environmental importance of indigenous vegetation.

Membership

INPAWS is a not-for-profit 501(c)(3) organization open to the public. For membership information, visit www.inpaws.org.

News and Views

Information to be shared with INPAWS members may be directed to membership@inpaws.org.

Officers

President	Nancy Hill	317-283-8345	nanhill86@earthlink.net
Past President	Karen Hartlep	317-253-6164	khartlep@interdesign.com
Vice President	Kevin Tungeswick	765-354-2775	kevin.tungeswick@gmail.com
Recording Secretary	Bobbi Diehl	812-334-3543	diehrl@indiana.edu
Corresponding Secty	Hilary Cox	317-272-4938	coxhilary@sbcglobal.net
Treasurer	Kathleen Hartman	317-576-1727	khartman@greenleaf-fg.com

Chapter Leaders

East Central	Alicia Douglass	765-623-4652	alicia.bever@gmail.com
Central	Tom Hohman	317-831-1715	hohmantr@aol.com
South Central	Laura Hohman	812-824-3210	laura.hohman@gmail.com
West Central	Reni Winter	765-714-4288	reni@winterhavenfarm.us

Committee Chairs

Annual Conference	George Peregrim	317-841-0465	g.peregrim@comcast.net
Conservation	David & Jane Savage	317-873-5083	ksavage@indy.rr.com
Education	Dan & Sophia Anderson	317-849-3105	danjand1@sbcglobal.net
Grants & Awards	Mary Damm		marydamm@gmail.com
Historian	Ruth Ann Ingraham	317-253-3863	rai38@sbcglobal.net
Invasive Plant Education	Ellen Jacquart	317-951-8818	ejacquart@inc.org
Journal Editor	Wendy Ford	317-334-1932	wwford@comcast.net
Membership	Mark Outcalt	317-257-3574	membership@inpaws.org
Native Plant Rescue	Dawn Bauman	317-274-0584	dbauman@iupui.edu
Plant Sale & Auction	Ron Jackson	317-782-3724	ronjack6@sbcglobal.net
	Melissa Moran	317-295-2021	moranfam@gmail.com
Programs & Field Trips	Mike Homoya		mhomoya@dnr.in.gov
Speakers Bureau	Dan & Sophia Anderson	317-849-3105	danjand1@sbcglobal.net
Website	Marcia Moore	317-940-8302	mmoore@butler.edu
Youth Outreach	Donovan Miller	317-283-1096	djbamiller@aol.com

INPAWS JOURNAL is printed on 100% post-consumer recycled paper.

Silver & Gold

A song we used to sing in Camp Fire Girls went "Make new friends, but keep the old, one is silver and the other gold." This could be the theme song of INPAWS right now. We have exciting, brand spanking new projects as well as long-standing commitments and annual events to which we remain true.

Here's an example. This past winter, after years of service, leadership of the INPAWS South Central Chapter stepped down. There were no apparent successors. Were we going to let this old friend slip away? Local chapters are considered vital to the INPAWS mission, the forum by which members meet each other and have programs and field trips of local interest. We're happy to report that Laura Hohman accepted the position of chapter president and has already enthusiastically reached out to South Central members.

As for "new friends," we have the July 18 "Landscaping with Natives" Garden Tour of Indianapolis-area gardens. We'll have an active presence at the first Hoosier Outdoor Experience September 25–27 at Fort Harrison State Park. We've made a commitment to advocate for change in weed ordinance issues. And we're joining a group of organizations working toward greater use of native plants along Indiana roadways.

And of course we're planning the next Annual Conference November 7 with two fabulous keynotes: Don Leopold, author of *Native Plants of the Northeast: A Guide for Gardening and Conservation*; and Steven Apfelbaum, author of *Nature's Second Chance: Restoring the Ecology of Stone Prairie Farm*.

I thank all of you for your enthusiasm and contributions to our organization and, in a greater sense, for your commitment to the health and joy of our land and its inhabitants. INPAWS is rich indeed.

—Nancy Hill

INPAWS Small Grants Awarded

The Small Grants Committee announces the following awards for 2009:

1. \$497 to Jonathan Bauer, Department of Biology, Indiana University, Bloomington, to study the effect of planting paw paw (*Asimina triloba*) and spicebush (*Lindera benzoin*) after removing amur honeysuckle (*Lonicera maackii*) on the native plant community in Cascades Park, Bloomington.
2. \$500 to Pat Brown, Beautification Chairman, Irvington Terrace CrimeWatch, Indianapolis, to beautify the Washington Street highway entrance to the Irvington neighborhood by planting native shrubs and grasses.
3. \$500 to Roy Johnson, Agricultural Science Instructor, East Central High School, Saint Leon, for high school Landscape Management students to design, install, and maintain a planting bed using native plants.
4. \$500 to Michael Phelps, Town of Brookston, to plant an acre of native prairie grasses and forbs in the Heart to Heart Walking Park.

Members of the 2009 Small Grants Committee—Mary Damm (chair), Ella Ingram, Ellen Jacquot, Jackie Luzar, and Shaena Smith—lent their expertise in biological research and education, invasive species removal, landscape design, and urban conservation. The breadth of their experience was an asset in evaluating the proposals, Mary Damm noted.

The committee thanks the twelve individuals and organizations from across the state who submitted proposals.

The next deadline for applications is February 1, 2010. For details, visit www.inpaws.org.





The author's "fixer-upper" landscape as purchased in 2001.

height of dense hedges in the front yard, but as far as I could find, these were the only guidelines for landscaping in the city code.

Going Against the Flow

My reputation on the block as the crazy gardening lady probably began with my second year in the neighborhood. My neighbors saw me out in the front yard, covering up the lawn with newspaper and mulch. As that sea of mulch smothered out the turf, I began planting some tiny plugs of prairie flowers and grasses that are native to Indiana or North America. I also planted a loose hedge of red-twigs dogwood shrubs to provide a border along the front sidewalk. Although this prairie planting looked a little absurd in its first year, it grew very well. The plants matured, and with more plants added over the next few years, it filled in pretty quickly. I was also able to purchase the empty lot next to my house and continued the prairie planting along the width of my whole yard.

At last count, I have planted more than 100 native plant species including a federally listed endangered species, Tennessee coneflower. Plants range in size from six-inch violets to seven-foot bunches of big bluestem and some nine-foot tall yellow flower spikes of prairie dock. More prairie grasses such as little blue stem, Canada blue rye, and bottlebrush grass are scattered around the planting with asters, butterfly weed, mountain mint, blazing star, royal catchfly, golden sundrops, black-

eyed susan, coneflower, cup plant, and compass plant.

A few years ago, I completed the last stage of this native planting—a rain garden to help retain stormwater run-off from my roof and yard. This part of the bed is filled with irises, phlox, culver's root, sedges, and other plants that can survive occasional flooding. The finished native planting spans fifty feet along the front sidewalk and runs fifteen feet deep into the front yard.

In addition to the front-yard native planting, I have continued landscaping all through the yard. The vegetable garden has grown into a nice plot in the sunny back yard, and mixed beds of ornamental flowers, shrubs, and other native plants surround the house and run along the property lines. This spring, I installed a big new pond in the back yard. The house is surrounded by a fair amount of well-maintained lawn as well.

Running Afoul of the Law

As the native planting in the front has grown into its full glory, I have unfortunately been cited several times with "tall grass and weeds" violations.

The Indianapolis Code, Chapter 575-2 (3)(a), specifies a violation called "environmental public nuisance," which is defined as

vegetation on private or governmental property which is abandoned, neglected,

disregarded or not cut, mown, or otherwise removed and which has attained a height of twelve (12) inches or more. [underlines inserted for clarity]

In 2007, several gardens in my neighborhood, including mine, received notices that we were in violation of this ordinance. Since our gardens were not abandoned, neglected, or disregarded, we promptly called our Mayor's Neighborhood Liaison and sent letters disputing the violation, with apparent success—no further violations arrived that year.

But last August, I received another weed violation. With an updated letter requesting a hearing to dispute the violation, including a landscape design, species list, and photos of the prairie bed in bloom, I visited the Office of Weed Ordinance Enforcement and spoke to a supervisor about my "weed" issue. I was told that I could request the hearing to dispute the weed violation, but that it would be pointless since the inspectors had already determined that I was in violation of the weed ordinance. What's more, in the supervisor's opinion, the photos I brought in did look like weeds.

She suggested that the only way to avoid this situation in the future was to have my yard designated as a native garden. Since I already had applied for and received a Wildlife Habitat Certification from the National Wildlife Federation, I hoped that this could be the solution, but it seemed that I needed certification specifically from the City of Indianapolis. Although the supervisor was sure there was a program to do this in Indianapolis, she did not know whom I could contact. She suggested that I consult the Indianapolis Health Department for more information.

Throughout last fall and winter, I contacted the Health Department and many other agencies in Indianapolis and throughout Indiana, only to discover that we have no certification program for natural or native plantings on private property. Through correspondence with the Mayor's Office, my issues with this weed violation had been filtered up to Rick Powers, the Director of the Office of Code Enforcement for Indianapolis-Marion County. It seems that there is one section in the Indianapolis Code that allows an exclusion to the weed ordinance for a "nature habitat area." Unfortunately, my little piece of natural habitat is too close to occupied structures to meet this exclusion.

Rick Powers emailed the suggestion that we wait and see if there is another neighbor complaint about my "weeds" this year,

and then deal with the situation—a solution I am leery of, since last year's letter informing me of the violation gave me less than a week to resolve the problem. I was taken aback, too, by certain comments in the Director's email:

This may be an area of consideration for future greening initiatives; however, I would urge caution. As was noted by staff today in legal review, it is one thing to accept a "single" yard covered in this condition, but imagine a street full of yards in the same condition as exceptions, and then the undesirable wildlife the condition can attract. This is a tough line to hold for me, because I am super appreciative of nature, but we must be considerate of the point-of-law going forward as an enforcement agency. An old adage, cops don't debate the speed limit.

So the notion of prairie plantings attracting undesirable wildlife is still used to argue against natural landscaping! And, although the Indianapolis Mayor is trying to "green" Indianapolis, native plant gardens are considered a nuisance rather than encouraged as an alternative to turf grass.



The prairie planting encompasses more than 100 species of native plants.



Fiona in the garden.

Troubled by this response from the City, I was not willing to wait for another weed violation. It seemed to me that the Code contained a contradiction—"weeds" seem to include any vegetation taller than twelve inches, yet "landscaping" permits hedges, trees, shrubbery, flowers, and vines that could readily top twelve inches. I began researching the issues in earnest.

Toward a Native-Friendly Weed Ordinance

I found hope when I discovered the Wild Ones website. Wild Ones, a grassroots leader in the natural landscaping movement, has put together some great information on how to change local ordinances to be more supportive of native landscaping. Many cities around the country have amended their weed ordinances to exempt native plants from the height restriction on weeds.

Changing our City Code seemed like the easiest solution to my own "violation" as this would allow for natural landscaping as an alternative to lawns. I began contacting people and organizations around town to garner support and guidance on how to change the weed ordinance in Indianapolis. In the process, I heard many stories of other gardeners who have run into problems using native plants in their landscaping. Clearly I was not alone in my struggle.

For the last few months, I have been talking with a lot of individuals, organizations, and City offices about this issue. INPAWS and Keep Indianapolis Beautiful, Inc., have offered to support a change to the weed laws in Indianapolis, and many City employees are working with me to find a solution. I have also heard from the Indianapolis Office of Sustainability, which is aware of the weed ordinance as a barrier to implementation of green infrastructure city-wide and is setting up a process to get this ordinance changed. I'm hoping they come through with some good changes.

Despite the difficulties that my native planting has caused, I remain happy that I planted it and willing to fight for its continued existence. Although not the typical urban landscape—lawn, round-pruned shrubs, and a few flowers—my yard is well-maintained and, to my eyes, pleasing to look at. Although the weed inspectors disagree with me, I believe it also falls within the restrictions set by the City Code.

My native planting dances with color and draws wonderful butterflies, hummingbirds, and songbirds into the neighborhood. In the late summer, when hot weather and lack of rain have sapped the energy out of most gardens in my neighborhood, mine is still putting on an amazing show.

INPAWS Action

Hearing Fiona Solkowski's story at their May 6 meeting, the INPAWS Board of Directors discussed the issues and unanimously passed the following motion:

INPAWS should actively encourage the adoption of local codes, ordinances, and covenants that permit landscaping with native plants.

Solkowski's landscape is among those featured in INPAWS' inaugural Garden Walk on July 18.

Meetings

Herewith the grand finale of our saga about boreals and Atlantic coastal plain disjuncts (CPs). The miracle: you can see both in the same Duneland habitat, sometimes even growing side by side.

But first, the BioBlitz.

From noon to noon on May 15 and 16, the Indiana Dunes National Lakeshore, under *National Geographic* sponsorship, celebrated "The BioBlitz," a kind of biodiversity festival in which 300 scientists were to guide thousands of adults and school children in teams of four to ten on concurrent four-hour surveys of every living thing throughout most sections of the park.

Fate said somewhat otherwise. The recession meant the *Geographic* severely reduced publicity, in turn reducing the number of participants. Torrential rains on the 15th caused some teams to cancel. A washed-out bridge didn't help.

This BioBlitz was the third of ten the *Geographic* is sponsoring to honor the 100th Anniversary of the National Park Service in 2016. The ten parks are all adjacent to urban areas with potentially numerous visitors.

One of the Lakeshore's merits is that, though covering only 15,000 acres, it is seventh in the number of plant species in our 391 national parks. The Dunes host not only 1,250 or so native plants but are also a plant crossroads: Eastern deciduous forest and tall-grass prairie species grow with boreals and CPs as well as a few southern and western species.

As leader of Team 145, fern expert David Hamilla assisting, I took my team of three

to an old-growth forest, also designated as hydromesophytic swamp forest, the survivor of an unsuccessfully drained subdivision now evidenced mostly by the vacated roads serving as hiking trails. As members of a team with official permits, we were privileged to try to jump dry shod over water-loving skunk cabbage (*Symplocarpus foetidus*), blue flag (*Iris virginica shrevei*), and lizard's tail (*Saururus cernuus*) to hummocks where tulip (*Liriodendron tulipifera*), beech (*Fagus grandifolia*), and spice bush (*Lindera benzoin*) hadn't yet shaded out spring ephemerals like spring cress (*Cardamine bulbosa*) and dwarf ginseng (*Panax trifoliatus*).

We were inventorying plants, partly in hope of finding something new (no luck), partly to see whether any changes had taken place since earlier inventories (probably not). The rarest plant seen (it was GPS'd) was state-threatened golden saxifrage (*Chrysosplenium americanum*), an inconspicuous, petal-lacking but agreeably dense "water mat" with one-third inch or less, often roundish leaves. It flourishes only at 600 feet above sea level, here in

HEALING NATIVES

The Community Herbalist

Greg Monzel, Herbalist

Somewhere between the gardeners and botanists, physicians and pharmacists, activists and mountain men, whether on the countryside or in the heart of the city, one may meet that strange bird, the grassroots herbalist.

Nibbling a flower and sniffing a scratched twig, she gathers bundles of *Eupatorium perfoliatum* and *Verbena hastata* in the meadow along the creek. She wades through the sedge back to her garden, plucks a couple of calendula and yarrow stems before she lets herself in through the kitchen door. There at her dining room table sit her neighbors with their ailing daughter, beset with influenza, clammy and pallid. The herbalist puts the kettle on and readies two cups of tea: boneset, yarrow, and calendula for the girl's flu; and blue vervain for her own nerves. Two cups of strong brew later, and under layers of quilts, the fever breaks and the neighbors go home to bed. Before the



healer may sleep, however, she must hang the bundles of herbs in the loft where the warm, dry air will make quick work of their dehydration. Now she can rest with a peaceful mind and heart.

Herbalists wear many hats. There are plant gatherers (wildcrafters), gardeners, seed-saving herbalists, clinicians, advocates, educating herbalists, organic farmers, medicine-makers, and speakers. Most herbalists are combinations of these roles, wedging plant communion with an ethic of care and a good dose of outreach.

The traditional indigenous herbalist has provided healing and healthcare to the sick, poor, and wounded for millennia.

Plant medicine is still the most widely used healing system worldwide, with 75 to 80 percent of the population using herbal medicine for their primary care. Many choose herbal medicine over pharmaceutical medicine even when both are options; many more use both herbs and drugs for therapy. It serves the community well to have people who understand how medicinal plants work in the body and how drugs may interact with them, and it serves the community well to have caregivers who connect patients with their environment.

My path as an herbalist began when, in my teens, I frequently came down with strep throat. I would take a prescription for antibiotics as directed, my throat would clear up, and four weeks later I had strep again. Curious, sharp, and appreciative of nature, I was determined to find another way. How would I handle strep throat if there weren't doctors and antibiotic drugs? I turned to my grandfather's books on "natural cures" and pretty soon was treating my strep by chewing pineapple cores and gargling with lemon juice blended with cayenne and cinnamon. Not long after, I

At the 2008 BioBlitz, school children helped identify more than 1,200 plant and animal species at Indiana Dunes. Photo courtesy of National Geographic at <http://www.nationalgeographic.com/field/projects/bioblitz.html>.



water seeping from the Calumet Dune toward the south.

But pleasing me most was pointing out side-by-side starflower (*Trientalis borealis*), a hummock-grower from Labrador growing near swamp star sedge (*Carex seorsa*), an edge-of-water growing CP. Recognize starflower by its whorl of five-to-ten unevenly long lanceolate leaves, pointed

at both ends, from which rise one to three thread-like pedicels supporting delicate, seven-lobed white flowers. State-rare swamp star sedge does resemble other star-flowered sedges but is recognizable here by its numerous, densely packed clumps at wet edges.

Other CPs and boreals appear here, some later in the season. CPs include screw-

stopped having frequent strep infections, and I became hooked on healing foods, many of which are culinary herbs.

Over the following decade, I devoured books on nutrition and alternative medicine, worked between health food stores and organic farms, gaining more awareness of nutrition and our food supply, and traveled throughout the US. Leaving my job as a supplements manager in a national chain health food store, I studied with the herbalist 7song at the Northeast School of Botanical Medicine for a seven-month season in Ithaca, New York, while living in a tipi and tending vegetables in exchange for rent. I began clinical consultations, wildcrafting, medicine making, and land stewardship while in school, then returned to my birthplace in Indiana to settle and start a business as a community herbalist.

Being an herbalist sometimes brings me into controversy. Certain members of the medical establishment assert that there is no scientific basis for herbalism. Conservationists have concerns about the sustainability of wild plant collection. Law enforcement workers, too, are often suspicious when I look at plants along roadsides or easements. Many people have the misconception that being an

herbalist means I peddle *Cannabis*. Even when some clients first see my apothecary, their minds conjure images of mysterious potions and mad science as they read tincture labels such as witch hazel, beggars' ticks, or stream orchid. Such skeptics are always welcome, but their suspicions reveal sometimes incorrect assumptions about herbalists and their craft and a certain fear of the unconventional.

Herbalists are as diverse a group as the plants we collect; no two herbalists will practice exactly the same way. We draw upon clinical trials, biochemical assay and chemical property research, traditional use, and anecdotal evidence in clinical formulation. Scientific research is available through the MedLinePlus and HerbMedPro databases. A private non-profit organization called the American Herbalists' Guild (AHG) sets standards of practice for professional herbalists and offers the designation of Registered Herbalist (RH).

Regarding the ecological impact of wild plant collection, an organization of herbalists called the United Plant Savers (UPS) advocates ecologically sound wildcrafting practices, encourages cultivation of at-risk plants, and establishes medicinal

stem (*Bartonia virginica*), swamp beggar's ticks (*Bidens discoidea*), the elusive oval-winged sedge (*Carex alata*), and, nearby, meadow beauty (*Rhexia virginica*). Boreals include paper birch (*Betula papyrifera*), the above-mentioned dwarf ginseng—in carpets—mountain holly (*Nemopanthus mucronata*), and smooth Canada mayflower (*Maianthemum canadense* var. *canadense*). One botanist thinks this plant may be both a CP and a boreal.

Only the botanist Gerould Wilhelm has seen the mountain holly. This fall, I plan "The Great Nemopanthus Hunt." Then its long-stalked red fruits should be a give-away.

For still more adjacent boreals and CPs, visit the Lakeshore's Pinhook Bog (guided tours only; call 219-926-7561).

Books

Swink, F., and G. Wilhelm. *Plants of the Chicago Region*, 4th edition. Indiana Academy of Science, 1994.

Yatskievych, K. *Field Guide to Indiana Wildflowers*. Indiana University Press, 2000.

plant sanctuaries. One such sanctuary is located in south-central Indiana; it is Green Turtle Botanical Sanctuary, stewarded by herbalist Susan Clearwater, RH (AHG).

Herbalists understand the interconnectedness of human health and environmental health, and so are stewards for the conservation and propagation of uncommon and at-risk plants in the wild. Many of the herbs I collect are exotic or invasive, common, ubiquitous, or cultivated species. The AHG Statement of Purpose includes striving "to promote an ecologically healthy environment and to increase awareness concerning the interdependence of all life, especially the plant-human relationships." To facilitate the healing of plants and people alike, being an herbalist is about building relationships of trust between people and plants.

To be continued...

A practicing herbalist, Greg Monzel teaches classes about herbs and health, offers workshops, gives plant walks, and volunteers for conservation and stewardship projects. Contact him at primitiveoriginsbotanicals@gmail.com.

Teapot illustration by Andrew Rado at www.andygetstoplay.com.

Where Do I Start?! Prioriti

*It's important to think through a plan for managing invasive plants on your land **before** you start the attack. Without a plan, it's easy to underestimate the time and resources it will take to control a species. You can end up overwhelmed and give up in frustration.*

Ellen Jacquart, Chair, INPAWS Invasives Awareness

An important part of planning is to prioritize the work ahead of you, deciding what species you should start on first, and where you should attack first. That way, at least you'll know that what you *did* accomplish was more important than what you didn't have time or resources to complete.

Here are some tips for prioritizing invasive plant control.

Prioritizing by species....

You walk through your woodlot and wince when you see the garlic mustard, which looks like it's spread considerably since last year. Then you notice the burning bush shrubs in the understory and realize your neighbor's landscaping has made itself at home in your woods. And that vine....those orange berries...geez, where did the oriental bittersweet come from?!

Like potato chips, it seems nobody can have just one invasive plant species. There are usually multiple species invading a given area, which can make the job of managing a site much more difficult. Where do you start when you have more than one species to deal with?

A lot of us have struggled with this, and fortunately there are some easy rules to help sort out which species to go after first. What follows is a simplified version of a prioritization template created by The Nature Conservancy. The complete tool can be found at <http://www.invasive.org/gist/products.htm> by clicking on the Weed Management Plan Template. Many other resources on the identification and control of invasive plants can be found on that site.

Before you start prioritizing, though, you need to know three things:

Know what you have.

Use a good field guide or a knowledgeable botanist friend to double-check that you've identified a real invasive plant rather than an innocent look-alike.

Know how much you have.

The priority you place on 50 plants of garlic mustard will be very different from 5 acres of garlic mustard, as you'll see in a moment. Map the invasive plants, circling each area of infestation and estimating what percent within the circled area is invasive species versus native. A handy way to do this is to use Google Earth to zoom in on your property and print out an aerial photo. Draw your property boundary on the aerial, then walk through your property in a grid-like fashion and mark what you see. Those of you with GPS units and GIS software on your computers are welcome to do it the high-tech way.

Know what you want.

This may be very easy for you, or very difficult. What do you most want to protect on your land? Is it the ovenbirds that nest there? The bluebells that bloom each spring by the creek? The deer habitat? The ability to walk through the woods without having to fight thorny shrubs? Deciding what you want to manage your land **for** is important. Think this through, and even map the areas you most want to protect against invasive plant species.

Now you're ready.

The following four questions will tell you which species should be your top priority. You should already know the answers to number one and two from figuring out above how much you have and what you want to protect. Numbers three and four are answered by reading information about each invasive species or talking to professionals who work with invasive species in your area.

For each species, answer these questions and add the points:

1. How much do you have?

1 pt—I don't have any, but it's near my land

2 pt—Just a small amount, but it's spreading

3 pt—A fair amount, and it's still spreading
4 pt—A LOT! It's covering the whole area completely

2. What's the value of the habitat being invaded?

1 pt—It's invading my favorite area that has the stuff I want to protect

2 pt—It's invading the disturbed edge or areas that I don't care as much about

3. What impacts is it causing?

1 pt—All is lost; it changes the area so much that few species survive

2 pt—It invades undisturbed areas and outcompetes native species

3 pt—It doesn't outcompete native species, but natives don't regenerate

4 pt—It invades disturbed areas like edges

4. How hard is it to control?

1 pt—Not too bad; one treatment and it's pretty much gone

2 pt—Takes multiple treatments, but eventually it's gone and natives replace it

3 pt—Takes multiple treatments and natives don't come back in readily

4 pt—No effective treatment has been found

Now add the total points for each species. *The lower the score, the higher the priority.*

To summarize it another way—*cheap and easy is often your top priority!* It is common to be mesmerized by the acres of garlic mustard in bloom and completely

zing Invasive Plant Control

miss the one oriental bittersweet vine that snuck in while you weren't looking.

If you have unlimited time and money, congratulations! Hire a big crew and go after them both. If, like most of us, you have limited time and money, turn your back on the garlic mustard and kill the oriental bittersweet. Nipping it in the bud, so to speak, means you can spend a small amount of time and money and keep it from becoming a huge infestation a few years from now. When it's dead, then go work on the garlic mustard.

Prioritizing at the site....

Alright, you say bravely, the oriental bittersweet vine is dead and I'm ready to tackle this huge area of garlic mustard. But it's a big project, and I'm not sure where to start. Here are a few more rules of thumb to help prioritize where to work first at a site.

First, identify and map invaded and un-invaded areas as shown below (that's a map of my woods). Then follow steps 1 through 4.

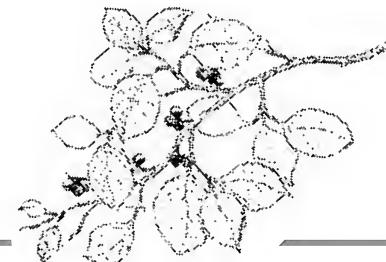
A few last things to keep in mind:

- If the invasive plant produces bird-dispersed fruits like berries, control the large seed source populations first (which in a forest will usually be along the edge where there is more light), then follow the four steps.
- All roads, trails, and watercourses are invasive corridors. Survey them regularly to detect new invaders quickly.
- If the invasive species is coming from adjacent land (for instance, the garlic mustard in the figure below appears to be coming from the land to the southwest), it's time to have a conversation with your neighbors to see if they will

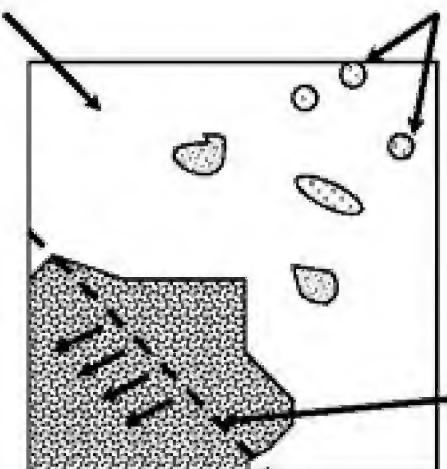
also work to control their infestation. I suggest bringing chocolate chip cookies as incentive.

- Keep your focus on what you are managing *for*, not against—just removing invasive plants may not be enough. The unfortunate reality is that invasive plants aren't the only threat to your land. If you love the bluebells that bloom at the creek each year and have worked hard to control the garlic mustard to protect them, keep in mind it's still possible for an overpopulation of deer to browse them all away. Don't lose sight of the big picture and other things that impact your land.

Controlling invasive plants can be challenging, but prioritizing your battles before you begin will make your success much more likely. Go get 'em!

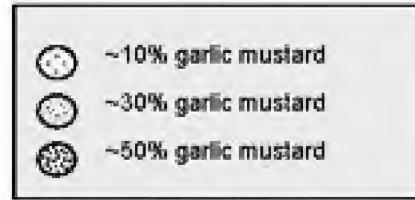


1 Focus on large blocks of un-invaded areas – and keep them un-invaded



4 Reverse the invasion: expand the un-invaded area outward

2 Control small, younger outlier populations first



3 "Unfragment" boundaries of invaded areas

Hike Preview: Fisher Oak Savanna Restoration

In its 220 acres, Fisher Oak Savanna Nature Preserve encompasses black oak sand savanna, pin oak flats, restored sand prairie, and restored black soil prairie.

The preserve is owned and managed by the NICHES Land Trust. On July 25, Gus Nyberg, Executive Director of NICHES, and Kevin Tungeswick, Vice President of INPAWS, will lead a field trip to view the varied habitats of the preserve with a focus on the prairie restoration efforts.

The original 133 acres were purchased in 2003. These acres contained high-quality oak savanna, degraded oak savanna, pin oak flats, and several agricultural fields. The property is unique in that it straddles two divisions of the Grand Prairie Natural Region: the Grand Prairie Section, and the Kankakee Sands Section. In 2005, a 67-acre black soil agricultural field was added to the south of the original property. The most recent purchase was made in 2007, adding 20 acres of savanna to the west side.

The field trip will focus on the restoration efforts that have occurred on the property. Communities being restored include sand savanna, dry sand prairie, mesic black soil prairie, and wet prairie.

Restoration of the agricultural fields was begun soon after the initial purchase. In the spring of 2004, the western fields were sown to wet and dry sand prairie. A simple mix consisting primarily of grasses was used because, during the prior year, the area had been treated with a persistent agricultural herbicide detrimental to forb germination.

The 12 acres that made up the southern field were sown to Roundup™-ready soybeans. These were deemed the ideal crop to prepare

the site for dormant installation of prairie seed in the fall; the soybeans allowed for weed control with Roundup, which leaves no residual that might affect prairie seed germination.

A diverse prairie mix including 8 grasses and sedges and 32 species of wildflowers was dormant sown in the southern field in December 2004. All the seeds were of Indiana genotype, most from within 50 miles of the site. Due to the wetness of the site, it was sown after the ground froze using a no-till prairie seed drill. Dormant sowing enhances the chances of successful seedling recruitment by providing appropriate stratification, permitting the seeds to germinate when the soil reaches the optimal temperature, and thwarting the effects of growing season drought.

Seed germination the following spring was excellent, creating a carpet of prairie plants by the end of the first growing season despite a summer drought. After four growing seasons, every species in the seed mix has been recorded in the planting, including conservative species such as prairie dropseed (*Sporobolus heterolepis*). Prescribed burns were performed twice on the planting (spring 2007 and 2009) to improve establishment.

The diversity of this planting makes it one of the most successful prairie restorations in the eastern Midwest.

In February 2009, the southern 67 acres were sown to a diverse wet to mesic prairie mix funded by the Wetland Reserve Program (WRP), U.S. Fish and Wildlife Service, and a grant from Northern Indiana Public Service Company (NIPSCO). We will be able to observe seedling development in the first growing season during the July 25 field trip.

Restoration of the sand savanna has taken place primarily over the past two winters. Grant money from the Wildlife Habitat Incentives Program (WHIP) has provided funding for the work. Efforts include removal of invasive trees such as black locust and white mulberry, removal of non-native adapted



Prairie dropseed (*Sporobolus heterolepis*). © Missouri Conservation Commission. All rights reserved.

New INPAWS Members

CENTRAL

Carol C. Beck
Deb Ellman
Susan Fordyce
Sara Friedline
Karen Gilliland
John Hazlett
Cloyce Hedge
Cathy Hurst
Jacqui Johnson
Jane Lommel
Tom Park
Patricia Sanders
Bill & Stacy Sanford
Karen Schnyder
Linda Shikany
Amy Smith
Carol & Stephen Trippel
Mike & Becky Wigginton

EAST CENTRAL

Stephen H. Hayes

SOUTH CENTRAL

Kathy Anderson
Janette Biggs
Chris & JudyKay Edwards
Linda Figen
Laura Gabbard
Joan Middendorf & Matt Wysocki
Chris Muir
Eric Rensberger
Angie Roepke
Marion Sinclair

WEST CENTRAL

Cathryn V. Bomberger
Steve & Sarah Sass
Lou Stephenson

species, thinning of the understory sapling layer, and introduction of prescribed fire. These measures will help open up the canopy, providing an opportunity to develop a more diverse herbaceous layer as well as improving habitat for savanna-dependent fauna such as red-headed woodpeckers.

Please join us on July 25 to see the excellent progress made by the NICHES Land Trust in restoring this significant block of habitat in an otherwise heavily agricultural region. The restoration performed at this site is an excellent example of the potential of reestablishment of native plant communities to preserve our natural history and create habitat for declining prairie and savanna-dependent species.

Watch the mail for your hike invitation with directions and details, or visit www.inpaws.org.

Extirpated

When forest blanketed the land and passenger pigeons still flew, browsing black bear followed the trail beside the stream flowing to the river. The land near the stream held the wetness, making the soil black. In a nearby clearing, a swamp white oak sprouted.

Map makers defined the land as Indiana. Settlers cleared most of the trees and farmers dug out the stream to make it straight for the land to drain. The swamp white oak grew, perhaps the lone seedling that escaped the digging.

I find the black soil when my shovel turns the earth. The swamp white oak, now tall, is the only native tree on my land not deliberately planted. The erstwhile stream flows in a ditch across the street, a deeply cut "V" meant to abate flooding during rain in an industrial park three-quarters of a mile away.

And the browse still grows, now untouched by nibbling bear, ready to sprout forth again when the mower is put away,

Pokeweed (*Phytolacca americana*) and its rambunctious native (but not planted) counterparts—black raspberry (*Rubus occidentalis*) and wild grape (*Vitis* spp.)—are common, sometimes defined as troublesome, plants that grow on their own and seem to have no purpose except to feed a few birds and pesky urban wildlife such as opossum and raccoon.

But when all the pieces of the land are reviewed and the extirpated animals are restored to mind, poke and other wild berries become dessert for black bear, fisher, porcupine, and spotted skunk. More of the plants' purpose is revealed. Their place on the land makes more sense.

Extirpated, as defined by The Nature Conservancy, means that a species "has ceased to exist in a chosen area of study but still exists elsewhere." More to the point, "if an animal has been absent from the state as a breeding population for more than 15 years, then it is considered extirpated."

The Indiana Department of Natural Resources lists 12 mammals as extirpated: American bison (*Bos bison*), gray wolf (*Canis lupus*), red wolf (*Canis rufus*), wapiti (*Cervus elaphus*), common porcupine (*Erethizon dorsatum*), mountain lion (*Felis concolor couguar*), wolverine (*Gulo gulo*), lynx (*Lynx canadensis*), fisher



(*Martes pennanti*), black rat (*Rattus rattus*), eastern spotted skunk (*Spilogale putorius*), and black bear (*Ursus americanus*).

The browsing habits of these mammals lost to Indiana tell a tale. Pokeberry has been documented to be included in the diet of the black bear, along with wild grapes, blackberries, elderberry, and thistle—plants often found growing in similar settings as pokeweed. The omnivorous eastern spotted skunk once ate small amounts of fruits in Indiana summers. The common porcupine, a generalist herbivore, nibbled on raspberry stems, apples, and currants. The fisher, also a generalist, ate fruit as well as porcupine.

Two elusive mammals, wild but not endangered or extirpated—the gray fox (*Urocyon cinereoargenteus*) and the red fox (*Vulpes vulpes*)—have pokeberry, apple, wild rose, wild grape, and black raspberry documented as part of their diets. Throngs of passenger pigeons (*Ectopistes migratorius*), now extinct, are likely to have dined on the wild berries as well.

I like to think of black bear browsing on the pokeberries and wild raspberries that have sprung up in my "let-go" patch, where some new swamp white oak seedlings have taken root. The thought reminds me that, for more years than the land has been cleared, a carefully balanced system was in place that ran on its own without being managed or named. I am thrilled that wilderness plants keep growing even though they now reside in town. And I take a secret joy in the knowledge that wild berries are here waiting for the black bear if it ever comes back.

Resources

Alexander C. Martin, Herbert S. Zim, and Arnold L. Nelson. *American Wildlife & Plants: A Guide to Wildlife Food Habits*. Dover Publications, 1961.

John O. Whitaker, Jr., and Russell Mumford. *Mammals of Indiana*. Indiana University Press, 2009.

Black bear drawing courtesy of Pennsylvania Game Commission.

Landscaping with Natives

Want to know what that 4-inch prairie dropseed will look like in two years? Or that tiny start of cardinal flower? How about the one-foot black chokeberry or bottlebrush buckeye? Join us July 18 for this rare chance to peek at some mature Indianapolis-area gardens that use native plants to define the landscape and attract beneficial wildlife.

From small to large, country to city, these six gardens offer a huge variety of ideas on how to use native plants in our home gardens—ideas that will work for dense shade, full sun, and wet and dry soils.

Broad Ripple Bungalow

6106 Kingsley Drive, Indianapolis 46220

A visit to the gardens of Ruth Ann Ingraham, a founder of INPAWS, tells you immediately how passionate she is about native plants. She has incredible variety in her city-size lot—trees, shrubs, grasses, flowers, and ferns—and loads of ideas for planting in shade. Expect to see clethra, aralia, jewelweed, blue lobelia, spiderwort, coralberry, liatris, queen of the prairie, butterflyweed, and dozens more. This is a well-loved 40-year old garden that has been added to repeatedly, bursting at the seams with fully mature Indiana natives.

Gimme a Break

1527 Fletcher Avenue, Indianapolis 46203

Eight years ago, Fiona Solkowski, a staff member at The Nature Conservancy, bought a refurbished Victorian home in the Fountain Square area with a front yard consisting of two overgrown cedars, grass, and dirt. She transformed the yard to include over fifty varieties of native plants. She came head to head, however, with the City Weed Ordinance Enforcement Office, which issued her violations for "tall grass and weeds." What the city calls weeds, we'd call a beautiful sunny border and one of the prettiest front gardens on the block. Come see for yourself how she uses plants like purple coneflower, sundrops, prairie dropseed, baptisia, New England aster, purple prairie clover, sensitive fern, and the rare Tennessee coneflower.

**Saturday, July 18
10:00 a.m. – 4:00 p.m.**

There is no charge for the tour, and you may visit the gardens in whatever order you wish.

Use Google maps or Mapquest to find directions to each garden. Please be considerate when parking in these neighborhoods.

Jens Jensen Inspiration

1035 Questover Circle, Indianapolis 46228

This garden is a gem. Homeowners Chris and George Plews have enthusiastically drawn inspiration from Jens Jensen, who designed Questover Circle in the 1920s for the F.D. Stalnaker family. The garden has large swaths of cool shade sheltered by mature sycamores, eastern redbuds, serviceberries, witchhazels, and hornbeams. In the sun are cup plant, boneset, cardinal flower, stiff goldenrod, and great blue lobelia. You'll also see pagoda dogwood, bottlebrush buckeye, red and black chokeberry, wood sedge, persimmon, and paw paw. There is no way to list all the beautiful natives in this large garden that also features a faithful re-creation of a Jens Jensen council circle. A special treat is a stairway walk down to White River through beautiful woods.

No Work at Work

1440 West 30th Street, Indianapolis 46208

At their lovely location along the Central Canal Towpath, the offices of Peine Engineering beautifully demonstrate two things: 1) how a native plant landscape can suit a commercial building, and 2) how one can create a native plant garden that requires NO maintenance. These gardens are never watered or weeded and, other than a once-a-year clean-up, are never fussed over. You'll see dozens of natives, including culver's root, Carolina rose, white coralberry, native bittersweet, big and little bluestem, native smoketree and the endangered Kankakee mallow. The firm did a bioremediation on this land, sited on a former coal yard. They removed two feet of coal and gravel and back-filled with actual prairie soil and compost. They are the first company in Indianapolis to become a certified National Wildlife Federation habitat, encouraging the visits of wood ducks, foxes, herons, frogs, and nesting birds.

Prairie by the Pool

8670 Bay Colony, Indianapolis 46234

This is the country in the city. Located in the Eagle Creek area, this prairie creation is a stunning backdrop to a family's recreation areas—a pool and large patio, tennis court, and soccer-size playing field. But it's not too civilized, being a home to fox, weasels, and woodcocks. Nine years ago, these prairie areas were seeded with Indiana's best sun-loving natives. Plants you'll see include swamp hibiscus, wild quinine, southern bush honeysuckle, prairie dropseed, culver's root, prairie coneflower, purple prairie clover, all the milkweeds, nodding wild onion, rough-leaved dogwood, and golden alexander. Also on the grounds is a Japanese garden

Garden Tour

where you'll find jack-in-the-pulpit, native stonecrop, liatris, and blue flag. As you walk through the many trails on this large property, stop and listen to the hum of nature and enjoy the aromas of a native prairie.

Country Garden

8351 E. County Road 200N, Avon 46123

This is the home garden of Hilary Cox, long-time INPAWS member, garden designer, author, and all-around plant expert. When Hilary first bought her 1828 settler's farmhouse and two country acres, she put in what she knew—an English garden. But she soon realized that what thrived there were plants that were either indigenous or of native parentage. For many years now, Hilary has gardened heavily with natives and entirely organically. Long ago she gave up worrying about weeds, bugs, and disease. "Once a plant is in the ground," she says, "I allow *it* to tell *me* if I have chosen the right place for *it*." She believes that a plant will, on its own, either thrive or fail or move to where it wants to be. The beauty of these grounds belies her hands-off approach. It would almost be easier to list the Indiana natives that Hilary does *not* have. Some highlights are goatsbeard, winecups, sneeze-weed, evening primrose, spicebush, witchhazel, Indian grass, side oats gramma, ironweed, wild hyssop, rough-leaved dogwood, *Silphiums*, elderberry, and yarrow.



Drawing by Greg Vacklavek, courtesy of nativeplant.com.

YOUTH OUTREACH

Letha's Fund Update

Letha's Youth Outdoors Fund is gaining momentum.

As a refresher for those of you who may still be unfamiliar with the fund, this INPAWS initiative seeks to provide financial support to groups, primarily elementary and middle school classrooms, who wish to take field trips to nature sites. The primary focus is on groups where a lack of funds might prevent the visit. Assistance is typically for transportation and/or naturalist fees.

This winter and spring, eleven applications were received and eight were funded at an average grant of \$250 per group. By the time all trips are completed nearly 600 students plus uncounted teachers and parent volunteers will have benefited from this program. Sites visited range from Holliday Park and Marian College EcoLab in Indianapolis to Merry Lea Environmental Center at Wolf Lake, Turkey Run State Park in Parke County, and Leonard Springs Nature Park near Bloomington.

Teacher feedback about the student experience so far has been spontaneous and glowing.

Char Thomas, a teacher from Chandler Elementary in Goshen, wrote, "We had our field trip to Merry Lea a week ago Friday and had a FANTASTIC time! It was a lot of fun to see the kids' excitement and see all the things they observed. The bus ride out was even a learning experience as we headed through farm country and lovely barn-cleaning smells were all around us."

Devonna Miltenberger, teacher at Craig Middle School, Indianapolis, reported, "The students LOVED it and they learned a lot about animals. They saw snakes and couldn't quit talking about it. They liked seeing the plants for the butterfly garden and being out in nature."

These early responses suggest the fund is meeting a significant need. They further confirm the mission INPAWS leadership envisioned when the fund was established. We believe there is strong potential for significant growth of the program. The Youth Outreach Committee will conduct a substantive program review this summer to gauge the future of Letha's Youth Outdoors Fund. A post-trip evaluation instrument is being sent to all participant schools to gather information for this process.

Watch for reports in future issues of INPAWS Journal, and please consider a donation to the work of Letha's Fund.

Gifts to Letha's Youth Outdoors Fund

Susan H. Lehmann
Jerry E. Clegg Botanical Garden
(% Jim Peterson)
Kelly Queisser

In Memory of Marvin J. Bareither
P. Lynn Goodin

Donations of any amount are sought.
Please send a check, made out to
INPAWS, to P.O. Box 30317,
Indianapolis, IN 46230-0317.
Note "Letha's Fund" in the comment line.

FIELD NOTES

INPAWS Updates List of Native Plant Providers

INPAWS' revised brochure *Landscaping with Plants Native to Indiana* no longer includes a list of native plant vendors and landscape designers. In the interest of keeping the brochure up-to-date, the list has been moved to the INPAWS website.

This spring, Hilary Cox, Tom Hohman, and Marcia Moore evaluated all the entries and updated their contact information. The entities now listed:

1. Are all based in Indiana.
2. Do not sell or design with plants that are invasive in Indiana, as determined by the Invasive Plant Species Assessment Working Group (IPSAWG).
3. Provide Indiana native plants as part of their stock or use them in their designs.

Ellen Jacquot, who headed up IPSAWG and chairs INPAWS' Invasive Awareness Committee, wrote an article for the Indiana Landscape Architects journal noting that INPAWS now uses the IPSAWG determinations as the standard for listing native plant providers.

Note: Our thanks to Jackie Luzar who updated contact information for nurseries and garden centers throughout Indiana so that we could inform them that our new landscaping brochure was available.



He's Baaack!

At the instigation of Karen Hartlep and Kevin Tungeswick, we've invited Doug Tallamy for a return visit to Indy to give more people the opportunity to hear his message. His talk is set for Tuesday, November 3.

Becky Dolan has arranged for Butler University and the Center for Urban Ecology to be chief sponsor—they're letting us have Clowes Memorial Hall for free! INPAWS is paying the honorarium, and we anticipate the participation of Indiana Wildlife Federation and the IMA Horticultural Society as well.

Clowes holds 2,200 people, and we're going to do our best to fill the hall. You can help! Mark your calendar and invite all your gardening friends to Tallamy's eye-opening talk that puts gardeners in the forefront of wildlife conservation efforts.

Doors open at 6:30 p.m. for refreshments and informational booths from local gardening and conservation organizations. The lecture begins at 7:30, and Tallamy will sign copies of the new paperback edition of *Bringing Nature Home*.

Hoosier Outdoor Experience on the Horizon

Plans are being finalized for the first annual Hoosier Outdoor Experience (previously called Hoosier Outdoor Expo) to be held at Fort Harrison State Park on September 25–27. The event will introduce Hoosiers who are not actively involved in outdoor recreation and nature related activities to the almost endless opportunities that exist. Diverse groups representing hunting, fishing, hiking, off-road vehicles, birdwatching, and many other outdoor-related activities will be present to show attendees how much fun and how rewarding their interests are.

INPAWS will have a display in the Wildlife area, and will coordinate our presentation with Indiana Wildlife Federation and Amos W. Butler Audubon Society. The INPAWS display will highlight the importance of native gardens in promoting wildlife, particularly the connection with the life cycle of butterflies. Live demonstrations of monarch butterfly tagging will be presented.

Displays from INPAWS and other groups will be on September 26 and 27, Saturday and Sunday. Volunteers are needed to help with the presentations. If you are interested in helping and have not already volunteered, please contact Tom Hohman at 317-831-1715 or hohmantr@aol.com.

More detailed information on the event can be found in the Winter 2008–09 issue of *INPAWS Journal* or on the Dept. of Natural Resources web site, <http://www.in.gov/dnr/5009.htm>.

Central Chapter News

In May, about a dozen Central Chapter representatives helped Indy Parks rid Woollen's Gardens Nature Preserve of invasive plants. The group spent an enjoyable Saturday morning pulling and cutting bush honeysuckle, oriental bittersweet, purple wintercreeper, privet, garlic mustard, and multiflora rose. The group also had an opportunity to visit this hard-to-access Indy Parks property.

We were awed by several huge examples of wintercreeper and oriental bittersweet. Each was 4–5 inches in diameter and reached high into the trees! However, much of the time was spent walking through high-quality habitat, looking for isolated examples of the invasives and removing them. This maintenance work is important because it removes the invasives before they have a chance to establish a population and a seed bank for future reinfestation.

In June, Dan McCord of the Hamilton County Urban Conservation Association led a walk and discussion on the creation of a 6.3-acre nature park for the Ridgefield Subdivision in Fishers. The project included planting 4.5 acres of native prairie, planting native trees and grasses in a riparian buffer along Sand Creek, and planting native trees and shrubs for wildlife habitat cover areas.

On July 18, Central Chapter hosts the first-ever INPAWS garden tour, and on October 17 will remove invasives at Gene B. Glick Nature Preserve, a CILTI-owned preserve on the northeast side of Indianapolis. INPAWS contact is Tom Hohman, hohmantr@aol.com.

2009 Plant Sale & Auction: Volunteers in Action!

Though we've witnessed it before, it is still an amazing sight to see INPAWS volunteers in action as they set up for the plant sale, assist plant sale shoppers, and stay to clean up afterwards. The chairs of other fundraising events would truly be envious of our volunteers!

As part of this year's sale, INPAWS members brought plants they had dug from their gardens and from plant rescues, a number totaling more than 600 pots! Nurseries and landscape contractors donated native plants, shrubs, and trees. Preliminary figures indicate the sale raised more than \$10,000 to support INPAWS' mission.

Plant sale volunteers and donors included Sophia & Dan Anderson, Cheryl & Andy Andrews, Nancy Ayers, Rosie Bonjouklian, Mike Campbell, Cira Coates, Hilary Cox, Debbie Davidson, Rebecca Dolan, Janice Gustafero, Marian Harcourt, Virginia Harmon, Karen Hartlep, Nancy Hill, Laura Hohman, Tom Hohman, Ruth Ann Ingraham, Ron Jackson, Christy Krieg, Chuck McCoy, Anna McLaughlin, Marian McKittrick, Donovan Miller, Martin Miller, Sheri Molnar, Dan & Melissa Moran, Monica Moran, Sue Nord Peiffer, Mark Outcalt, Dee Ann Peine, Raymond Rust, David & Jane Savage, Cristiana Joy Schmer, Laura & Arne Snipes, Deb Snyder, Kelly Spiegel, Rosie Springer, Charles & Marilyn Spurgeon, Dawn & Michael Stelts, Doris Thomas, Kevin Tungeswick, Reni Winter, Bill Wurster, and Susan Zellers. If we have omitted anyone from this list (not all volunteers used the sign-in list or accepted a receipt for their donation), please accept our apology and let us know.

The plant sale would not have as diverse a selection, nor as significant quantities of shrubs and woody plants, were it not for our business sponsors who donate plant material so generously. The nurseries and contractors who donated materials and expertise for the sale are listed below. Please support these key supporters of INPAWS with your patronage.

Hobbs Nursery/Becker Landscape,
Indianapolis
Beineke's/The Land Nursery, W. Lafayette

Clegg Botanical Garden, Lafayette
Leescapes Garden Design, Avon
Mark M. Holeman, Indianapolis
Munchkin Nursery & Gardens, Depauw
Native Plants Unlimited, Fishers
Spence Restoration Nursery, Muncie
Winterhaven Wildflowers, West Point

To all who supported the plant sale, INPAWS' primary fundraiser, please accept our gratitude!

*Melissa Moran and Ron Jackson
Co-chairs, 2009 Plant Sale & Auction*

Chicago Ban Protects Native Flora

Chicago has added 14 terrestrial plants to its list of "invasive species" that threaten native plant life. Businesses caught selling invasive species in Chicago face a fine of \$1,000 to \$5,000, while a private grower can be charged between \$100 and \$500. The Chicago Department of Environment will prosecute sellers and hobbyists alike who import, sell, or possess the following:

Akebia quinata (Chocolate vine)
Ampelopsis brevipediculata (Elegans porcelain berry vine)
Anthriscus sylvestris (wild chervil)
Celastrus orbiculatus (oriental bittersweet)
Humulus japonicus (Japanese hops)
Leymus arenarius (lyme grass)
Ligustrum spp. (privet)
Miscanthus sacchariflorus (Amur silver grass)
Paulownia tomentosa (princess tree)
Phellodendron amurense (Amur corktree)
Phellodendron japonica (Japanese cork-tree)
Polygonum cuspidatum (Japanese knotweed)
Quercus acutissima (sawtooth oak)
Ranunculus ficaria (lesser celandine)

These plants join the list of restricted flora and fauna established in Chicago's Invasive Species Regulations of May 2007. The agency is especially concerned that global warming is rendering the ecosystem more vulnerable, opening the door to new invasive flora that can survive Chicago's milder winters and hotter summers.

Coming Up

Saturday, July 18
INPAWS Landscaping with Natives Garden Tour, Indianapolis area, hosted by Central Chapter, 10:00 a.m. to 4:00 p.m.

Saturday, July 25
INPAWS Hike in Fisher Oak Savanna Nature Preserve (Jasper County) led by Kevin Tungeswick and Gus Nyberg

Saturday, August 29
INPAWS Hike in Yuhas Woods (Randolph County) led by Dr. Don Ruch and Dr. Bryon Torke

Friday–Sunday, September 25–27, **Hoosier Outdoor Experience**, Fort Harrison State Park

Tuesday, November 3
An Evening with Doug Tallamy, Clowes Memorial Hall, Butler University, Indianapolis

Saturday, November 7
16th Annual INPAWS Conference, Athenaeum, Indianapolis. Keynote speakers: forest ecologist Don Leopold, author of *Native Plants of the Northeast*; and prairie ecologist Steven Apfelbaum, author of *Nature's Second Chance: Restoring the Ecology of Stone Prairie Farm*.

Watch for announcements of INPAWS events and field trips in the mail, via e-mail, and at www.inpaws.org.

Phytoplasma

A pathogen usually found in subtropical plant crops such as sugarcane and coconut is causing symptoms in our native purple coneflower. The culprit is a *phytoplasma* which has been recorded in Wisconsin, Maryland, and Canada. Symptomatic coneflowers were even spotted recently outside the Holliday Park Nature Center in Indianapolis.

Two principal symptoms are seen on coneflowers: *Phyllody* is the production of leaf-like structures where flowers are expected, and a sort of witch's broom effect. The organism is thought to interfere with the gene involved in petal formation, causing sepals to form where petals should be. *Virulence* is the development of green flowers due to the loss of pigment in petal cells. Yellowing of leaves is also seen, possibly indicating an adverse effect on the phloem that transports carbohydrates through the stem.

Like viruses, phytoplasmas cannot be cultured, making it difficult to diagnose their presence. However, with the molecular diagnostic techniques now available, scientists have been able to detect the pathogens in diseased tissue and an absence of pathogens in healthy tissue. *Aster Yellows* is the specific phytoplasma that affects purple coneflower. It is also seen in goldenrod and aster.

Phytoplasmas are spread primarily by insects, specifically leaf-hoppers and planthoppers, which feed on the phloem tissues of infected plants and transmit the pathogens to the next plant they feed on.

If you spot suspicious symptoms in your coneflowers, destroy the infected plants as soon as possible to reduce the number of leaf hoppers that will pick up the pathogen when feeding on an infected plant. You can also mow tall grass and reduce tall, brushy areas to minimize the leaf hopper's overwintering sites.

Sources

Phytoplasmas. <http://en.wikipedia.org/wiki/Phytoplasma>

G. R. Stanosz and M. F. Heimann, Department of Plant Pathology, University of Wisconsin, Madison 53706; and I.-M. Lee, USDA-ARS Molecular Plant Pathology Laboratory, Beltsville, MD 20705



Phyllody on purple coneflower (*Echinacea purpurea*). Photo courtesy of Wikimedia.



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Conference Preview



Donald J. Leopold

Don Leopold has been studying native plants for nearly 30 years, and from every angle—gardening, conservation, and ecology.

He earned his Ph.D. in forest ecology from Purdue University in 1984 and has a master's in forest ecology and a B.S. in ornamental horticulture and nursery management, both from the University of Kentucky.

A Distinguished Teaching Professor and Chair of the Department of Environmental and Forest Biology, State University of New York, Leopold has taught classes in dendrology, plant materials, conservation and restoration, and freshwater wetland ecology. He has published more than 55 peer-reviewed papers, six books, and numerous book chapters, reviews, and other articles. Four of his books are major treatments of trees in North America.

His newest book, *Native Plants of the Northeast: A Guide for Gardening and Conservation*, won the Garden Writers Association of America's Silver Media Award for excellence in horticultural writing. It is a compendium of over 700 native ferns, grasses, wildflowers, vines, shrubs, and trees for gardens and restoration projects in the midwest and eastern U.S.

Leopold opens the book asking, "Why another native plant book?" He quickly answers his own question by providing gorgeous pictures, clear descriptions of traits and growing requirements, and personal experiences of performance in different conditions. Especially helpful are his notations of worthy cultivars and lists of "Plants that Tolerate Wet Soil," "Plants that Tolerate



Plant Communities

What to Plant
Where – and Why



Indiana Native Plant and
Wildflower Society
16th Annual Conference

November 7, 2009
8:00 a.m. to 5:00 p.m.

The Athenaeum
Indianapolis



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INPAWS JOURNAL is published quarterly for members of the Indiana Native Plant and Wildflower Society. Material may be reprinted with the permission of the editor.

All are invited to submit articles, news items, and event postings of interest to our membership. Acceptance for publication is at the discretion of the editor. INPAWS welcomes opposing viewpoints.

Please submit text and photos via e-mail to wwford@comcast.net or via land mail to INPAWS JOURNAL, 6911 Cabernet Way, Indianapolis IN 46278.

Submission deadlines for specific issues are as follows:

Spring
February 23 for April 1 mailing

Summer
May 23 for July 1 mailing

Autumn
August 23 for October 1 mailing

Winter
November 23 for January 1 mailing

INPAWS Mission

To promote the appreciation, preservation, conservation, utilization and scientific study of the flora native to Indiana and to educate the public about the value, beauty, diversity, and environmental importance of indigenous vegetation.

Membership

INPAWS is a not-for-profit 501(c)(3) organization open to the public. For membership information, visit www.inpaws.org.

News and Views

Information to be shared with INPAWS members may be directed to membership@inpaws.org.

Officers

President	Nancy Hill	317-283-8345	nanhill86@earthlink.net
Past President	Karen Hartlep	317-253-6164	khartlep@interdesign.com
Vice President	Kevin Tungeswick	765-354-2775	kevin.tungeswick@gmail.com
Recording Secretary	Bobbi Diehl	812-334-3543	diehrl@indiana.edu
Corresponding Secty	Hilary Cox	317-272-4938	coxhilary@sbcglobal.net
Treasurer	Kathleen Hartman	317-576-1727	khartman@greenleaf-fg.com

Chapter Leaders

East Central	Alicia Douglass	765-623-4652	alicia.bever@gmail.com
Central	Tom Hohman	317-831-1715	hohmantr@aol.com
South Central	Laura Hohman	812-824-3210	laura.hohman@gmail.com
West Central	Reni Winter	765-714-4288	reni@winterhavenfarm.us

Committee Chairs

Annual Conference	George Peregrim	317-841-0465	g.peregrim@inpaws.org
Conservation	David & Jane Savage	317-873-5083	d5j8z2@indy.rr.com
Education	Dan & Sophia Anderson	317-849-3105	danjand1@sbcglobal.net
Grants & Awards	Mary Damm		marydamm@gmail.com
Historian	Ruth Ann Ingraham	317-253-3863	rai38@sbcglobal.net
Invasive Plant Education	Ellen Jacquart	317-951-8818	ejacquart@inc.org
Journal Editor	Wendy Ford	317-334-1932	wwford@comcast.net
Membership	Mark Outcalt	317-257-3574	membership@inpaws.org
Native Plant Rescue	Dawn Bauman	317-274-0584	dbauman@iupui.edu
Plant Sale & Auction	Ron Jackson	317-782-3724	ronjack6@sbcglobal.net
	Melissa Moran	317-295-2021	moranfam@gmail.com
Programs & Field Trips	Mike Homoya		mhomoya@dnr.in.gov
Speakers Bureau	Dan & Sophia Anderson	317-849-3105	danjand1@sbcglobal.net
Website	Marcia Moore	317-940-8302	mmoore@butler.edu
Youth Outreach	Donovan Miller	317-283-1096	djbamiller@aol.com

INPAWS JOURNAL is printed on 100% post-consumer recycled paper.

PRESIDENT'S MESSAGE

Mainstream

I was recently in line at the grocery store and noticed a *Better Homes and Gardens* special fall issue. I pulled it from the rack and leafed through it, admiring the beautiful Japanese gardens, containers of mums, purple kale, and ornamental peppers, and a full-blown English cottage garden. Then I ran across the article "10 Best Natives for Country Gardens."*

"Growing native plants is the most beautiful and carefree way to bring the natural landscape right into your own backyard," it began.

This is preaching to the choir for us INPAWS members. But isn't it great to see native plants in the mainstream media? It means that everything we do—our plant sale, our talks and walks with youth, our annual conference, our education about invasives, our literature and speakers, our hikes and tours, our excellent Journal, and so much more—it all makes a difference and contributes to a larger, national wave toward greener, smarter, more ecologically responsible ways to have plants in our lives.

I'd like to thank the volunteers and homeowners who let us tromp through their beautiful gardens this past July for our hugely successful "Gardening with Natives" garden tour. I know many of you mulched and deadheaded for hours to show how beautiful native plantings can be. Nearly 200 people enjoyed the fruits of your efforts.

I urge you to attend the INPAWS Annual Conference November 7. I know I say it every fall, but this year's could be the best ever. The speakers are phenomenal—and may even surprise you!

Hope to see you there.

—Nancy Hill



*The plants (since I'm sure you're dying to know) were false indigo, ironweed, maidenhair fern, joe-pye weed, butterfly weed, queen-of-the-prairie, Canadian wild ginger, culver's root, goldenrod, and bee balm.

INPAWS PARTNERS

Pheasants Forever

Formed in 1982 in response to the continuing decline of upland wildlife, Pheasants Forever is dedicated to the conservation of pheasant, quail, and other grassland creatures. Although its aim is to increase populations of game birds, this nonprofit organization supports all habitat restoration, thus also benefitting songbirds and beneficial insects.

Known as "The Habitat Organization," Pheasants Forever achieves its aim through habitat improvement, public awareness, education, and land management policies and programs. Its members are a diversified group of hunters, non-hunters, farmers, ranchers, landowners, conservation enthusiasts, and wildlife officials.

Grassland habitat—a mixture of native grasses and wildflowers—provides needed nesting, brood rearing, feeding, and wintering areas for game birds and many other species. Accordingly, Pheasants Forever makes available specialists for hire to complete habitat projects or maintain existing habitat in many areas of the country.

The habitat teams are equipped with tractors, trailers, seed drills, tree planters, watering and fire management equipment, mowers, and more. Each team is run by an experienced habitat specialist who can help homeowners or neighborhoods plan their project, determine if they qualify for federal or state cost share programs, and plant and manage the grassland to maximize wildlife potential.

Nationally, Pheasants Forever promotes the No Child Left Indoors® Initiative to get kids outdoors, spurred in part by Richard Louv's popular book *Last Child in the Woods: Saving Our Children from Nature-Deficit Disorder*. Working with chapters, members, and conservation partners, Pheasants Forever provides opportunities to be involved in outdoor activities through youth and family habitat projects, outdoor events, and community activities.

For more about Pheasants Forever, visit www.pheasantsforever.org.

Illustration courtesy inghamconservation.com.

Conference Preview

continued from page 1

Dry Soil," "Plants that Tolerate Shade," "Plants with Flowers that Attract Butterflies and Hummingbirds," "Plants with Fruits that Attract Birds," and "Plants with Fruits that Attract Mammals."

MORNING KEYNOTE

What Natural Communities Teach Us to Plant

Natural communities—groupings of plant species that co-occur—can guide us in the planting of native species in the landscape. Dr. Leopold will highlight some of the common and lesser known trees, shrubs, ferns, wildflowers, and grasses that are native to the eastern U.S. and that are excellent candidates for the garden, especially the more difficult sites. Understanding the biology, ecology, and conservation of our native plants helps us incorporate them into a variety of garden and larger landscape settings, including difficult restorations.

BONUS TALK

Lesser Known but Very Worthwhile Natives

This presentation will highlight some of the lesser known but truly extraordinary native ferns, grasses, wildflowers, shrubs, and trees. Some provide unique colors, textures, ecological function, and even exceptional food. Many of these species are also very well suited to unusual or difficult site conditions in the home and urban landscapes, although most will perform well under average conditions.

Steven I. Apfelbaum



Steve Apfelbaum is among the world's best-known leaders in ecological system restoration, conservation development, and the restoration of hydrology.

He is founder, president, and senior ecologist of Applied Ecological Services in Brodhead, Wisconsin, which has designed and built thousands of restorations, reclamations, land stabilizations, native landscapes, green roofs, and other projects.

Several years ago, Steve and his partner Susan Lehnhardt purchased and restored Stone Prairie Farm, a 150-year old farmhouse and 80 acres of southern Wisconsin farmland. Long depleted by corn crops, pesticides, and invasive species, the land has become a thriving prairie, full of wildflowers, birds, butterflies, and other wildlife. The stream once again runs clear, and Steve says dozens of pheasant wake him at 4:00 a.m.

His eco-memoir of this adventure, *Nature's Second Chance: Restoring the Ecology of Stone Prairie Farm*, was named by *Booklist* as "One of the Top Ten Books on the Environment in 2009." Reviewer Donna Seaman says, "Apfelbaum's book is as rich in farming adventure, environmental ideas, and profound insights as a restored prairie is rich in life and beauty."

AFTERNOON KEYNOTE

Restoring the Ecology of Stone Prairie Farm

This talk tells of both eco-adventure and personal journey. A recent guest on NPR, Apfelbaum delightfully relates the twists and turns in this large-scale, long-term project and reinforces how a commitment to conservation, coupled with lots of learning along the way, can have unimaginable impact on both one's personal life and the larger community.

Shaena Smith

Shaena Smith is an Urban Conservationist with the Hamilton County Soil and Water Conservation District. She coordinates the District's Backyard Conservation Program, promoting small changes in urban landscapes to improve water quality, provide wildlife habitat, and protect soil quality. Smith has a bachelor's degree in Wildlife and Horticulture



Dan McCord

Dan McCord, Founder and President of the Hamilton County Urban Conservation Association, promotes the protection and restoration of habitat in that rapidly growing county. His specific emphasis is on converting neighborhood common areas to habitat. A strong advocate for the use of native plants in restoration projects, he also serves on the Pheasants



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from Purdue University and is president of the Indiana Wildlife Federation.

TOPIC

Rain Gardens and Water-Worthy Natives

Rain gardens are a new, innovative stormwater management practice that we can all implement in our own backyards. These shallow, landscaped beds intercept stormwater that would otherwise run into the streets, storm sewers, and eventually our streams and rivers.

By intercepting that water and allowing it to infiltrate into the ground, we are recharging groundwater aquifers, reducing water pollution and soil erosion, and creating wildlife habitat. Shaena Smith will explain what these novel gardens are, how they benefit our environment, and how you can install one right in your own backyard or neighborhood.

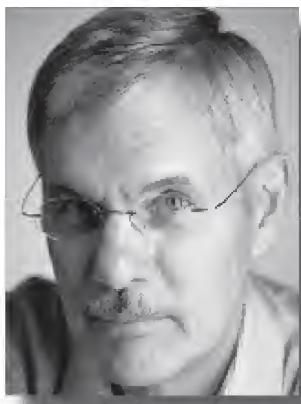
Forever Central Indiana Chapter Habitat Committee and on the Hamilton County Soil and Water Conservation District Backyard Conservation Program Steering Committee.

TOPIC

Going Native in Suburbia

Many neighborhoods contain mowed turf-grass common areas and retention ponds, which offer little to no ecological benefit and limited wildlife habitat. Restoring these areas with native plants can help to improve water quality and soil quality. In addition, the restored areas provide needed wildlife habitat. McCord will discuss the conversion of a mowed 6.5 acre neighborhood common area to native grasses and wildflowers and will detail the financial and environmental benefits associated with the establishment of a neighborhood nature park.

Norbert Krapf



INPAWS member Norbert Krapf is Indiana's current Poet Laureate and a Pulitzer Prize nominee. A native of Jasper, he returned to live in Indiana in 2004 after thirty-four years of teaching at Long Island University.

Krapf has been a Fulbright Professor of American poetry at the Universities of Freiburg and Erlangen-Nuremberg and has translated early poems of Rainer Maria Rilke.

The natural world of Indiana and the Indiana German heritage have been major influences on his work as a writer. He has published five collections and a CD, including *Bloodroot: Indiana Poems*; *Invisible Presence: A Walk through Indiana in Photographs and Poems* with photographer Darryl Jones; and *Sweet Sister Moon*, celebrations of women.

TOPIC

Inspiration from Nature and Place

Dr. Krapf will discuss how his work is grounded in a sense of place and his connection to the natural world. *Bloodroot*, he says, "brings together the essential poems rooted in my native place that engage the details of the natural and human history—the external and internal cosmos—of the landscape that I was given as a birthright.

He will read from *Bloodroot* and *Invisible Presence*.

Rich Clark

Rich Clark is arguably Indiana's finest nature photographer. His work has been published in many books and magazines, including *Audubon*, *Natural History*, *Time*, and *Newsweek*. He has long been sole photographer of BrownTrout's *Wild and Scenic Indiana* calendar. His gorgeous book *Wild and Scenic Indiana* is a panoramic portrait of seventeen years of photos of natural Indiana.

Clark tramped through backwoods, waded innumerable rivers, and visited hundreds of locations to assemble a collection of photos that highlight the landscape diversity of our state. The book's twenty-six chapters correspond to Indiana's landform divisions. Scott Russell Sanders, who wrote the introduction to this beautiful book, says "However much or little you already know about this piece of the earth we call Indiana, these loving photographs will teach you more."

Clark was born and raised in Illinois and has been fascinated by nature since he was very young. He studied zoology at Colorado State University and professional photography at Colorado Mountain College. His assignments have taken him all over the world, including the American West, Alaska, Mexico, Canada, India, Nepal, Pakistan, and Iceland.

To see more of his work, visit www.richclarkphoto.com.



TOPIC

Photographing Indiana

Rich Clark takes us through many of the stunning images in *Wild and Scenic Indiana* and discusses how they came to be, relating his adventures and efforts to be "at the right place at the right time." He'll include both landscapes and close studies of single subjects. As an added treat, Clark will include some of his newest work—studies of luna moths and bald eagles.

The Why & How of Botanical Medicine

Herbalism is experiencing renewed growth and interest in America today. Herbalism was the primary system of healthcare until the rise of pharmaceutical science and chemical isolation.

Pharmacists of the early 1900s extracted plants much as I do today, and their physician counterparts gave prescriptions for plant extracts and other naturally occurring materials such as minerals or basic chemical compounds. The herbalists of this era were known as the Eclectics, as they brought together physiology and herbs, conducted provings to ascertain new plant properties and uses, and elevated herbalism to the standards of science.

We lost this rich tradition to the popular culture of "better living through chemistry." Generations later, we are paying for our better living with environmental degradation from chemical laced sewage, chemical plant spills, and agricultural runoff as well as corresponding increases in chronic diseases, autism spectrum disorders, and infant mortality.

Herbalism has been a good alternative for many who strive to live in harmony with their environment rather than in domination of it. Plant medicine is natural, effective, scientifically supported, holistic, and sustainable. It is a medicine of the people; after all, anyone can pick plants for medicine.

The process of botanical medicine is pretty straightforward. It starts with knowing your plant to the level of species and finding large communities of medicinally useful plants in a place where harvesting is legal and ethical.

When the conditions are right, the plants are collected with care to cause as little disruption to the soil and plants as possible, taking only a percentage of plants from a community whose population can support the loss. When possible, vegetative propagation and seed planting should accompany the collection.

The raw plant material is taken back to the apothecary for processing, which usually means drying and/or alcohol extraction.

Once processing is complete, the herb is stored for later dispensation.

When I give someone a health consultation, I formulate herbs that support the person's constitutional health while also addressing the specific condition that they seek help with. I then measure and combine the herbs, bottle them, and give dosing instructions and self-monitoring parameters to the client.

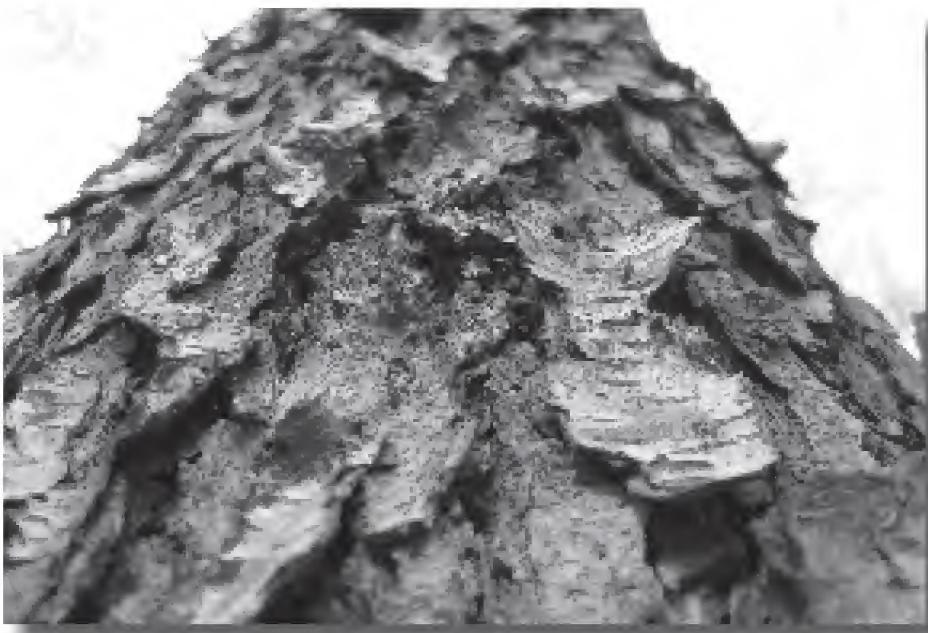
Because of the complex chemistries of plants, a single plant can have many uses or properties in the body, and hence address multiple issues at once. In this way, the herbs can be selected to fit the holistic picture of imbalance in an unhealthy person.

Fundamentally, botanical medicine, or herbalism, is a comprehensive and holistic system of health management that offers seekers a natural and sustainable alternative to the conventional medical establishment. Herbalists focus on personal responsibility for health, and educate their clients to promote self-healing through plants.

We are conservationists and stewards and work to restore ecological health as well; healthy plants lead to healthy people. Herbalists seek to bring plants and people into communion, as we all share this one world on which we live.



Sambucus canadensis, or elderberry: a potent antiviral, antioxidant, and immune system stimulating herb.



Prunus serotina, or wild black cherry bark: a drying expectorant that suppresses cough at the central nervous system level.



Viburnum prunifolium, or black haw; the root bark is an excellent antispasmodic for smooth muscles cramps in the uterus or small intestine.

A practicing herbalist, Greg Monzel teaches classes about herbs and health, offers workshops, conducts plant walks, and volunteers for conservation and stewardship projects. Contact him at primitiveoriginsbotanicals@gmail.com.

*I have seen
a light green
leaf, closely
coiled around
a stalk, emerge
through winter
brown leaves.*

*A flower rose
above, white
as fresh snow
atop a mountain.*

*Eight oval petals
opened like
parts of an eye
eager to behold
all that's new.*

From *Bloodroot: Indiana Poems*, by Norbert Krapf

New INPAWS Members

CENTRAL

Gary & Sally Baxter

Frank Collins

Fiona Solkowski

Jane Sweet

Charlotte Templin

SOUTH CENTRAL

Charlotte Galloway

WEST CENTRAL

Geraldine Friedman

Fixing a Hole Where the

As part of its 2008 Small Grants Program, INPAWS helped to support the building of two demonstration rain gardens in Hendricks County. Jessica Norcross, Natural Resource Conservationist, Hendricks County Soil & Water Conservation District, provided this report.

Native plants are the workhorses of stormwater management, a reputation richly deserved. With their deep root systems, native plants filter and absorb pollutants from runoff and improve drainage. Many are tolerant of the periodic wet and dry conditions present in rain gardens, bio-swales, and constructed wetlands. They form the cornerstone of vegetative best management practices (BMPs), which seek to increase pervious surface, improve infiltration and absorption of stormwater into the ground, recharge groundwater supplies, and decrease flooding.

In 2008, Hendricks County Soil & Water Conservation District sought funding to build two demonstration rain gardens. Their aim: to educate the public about stormwater runoff, how and why to install rain gardens, and how native plants help to improve water quality. They also hoped to create and improve wildlife habitat and beautify the landscape.

Collaborators on the project were the Hendricks County Partnership for Water Quality, Hendricks County Master Gardeners, Hendricks County 4-H Fairgrounds & Conference Complex, and McCloud Nature Park. A \$500 grant from INPAWS enabled the SWCD to purchase native plants for the gardens.

The first rain garden was built at Hendricks County 4-H Fairgrounds & Conference Complex in Danville, Indiana. The complex is used year-round for various events, including family reunions, livestock shows, wedding receptions, and concerts. The rain garden is located around an existing inlet structure on the east side of the Exposition Hall and will treat stormwater runoff from the main parking lot once established.

In April 2008, a 20 x 20 foot area was covered with a layer of wet newspapers topped with hardwood mulch to smother the grass. In May, four Hendricks County Master Gardeners planted 282 native plant plugs, including butterfly weed (*Asclepias tuberosa*), New England aster (*Aster novae-angliae*), fox sedge (*Carex vulpinoidea*), purple coneflower (*Echinacea purpurea*), blue mist flower (*Eupatorium coelestinum*), dense blazing star (*Liatris spicata*), switch grass (*Panicum virgatum*), common mountain mint (*Pycnanthemum virginianum*), showy black-eyed susan (*Rudbeckia fulgida speciosa*), little bluestem (*Schizachyrium scoparium*), prairie dropseed (*Sporobolus heterolepis*), and golden alexanders (*Zizia aurea*).

In June 2008, the garden experienced flooding. Most of the plants managed to survive, but we realized we had underestimated the amount of runoff from the parking lot. Repairs were made in spring 2009 to areas that lost mulch and plants due to the amount of water flowing through those spots. The damaged areas were graded and replanted with sedges, and we used rock instead of hardwood mulch. During the 4-H fair in July, the garden was the site of daily presentations on how a rain garden works to improve water quality through filtration, reduction of fertilizer and pesticide use, and decreased water consumption.

Construction of the second demonstration, planned for spring 2009, was delayed because of wet weather. Located at McCloud Nature Park southwest of North Salem, Indiana, near the border of Hendricks and Putnam Counties, the park provides a more natural setting than the paved fairgrounds complex. Staff at the park dug the garden by hand a few days prior to planting, and



Remediation of flooded area at Danville 4-H Fairgrounds.

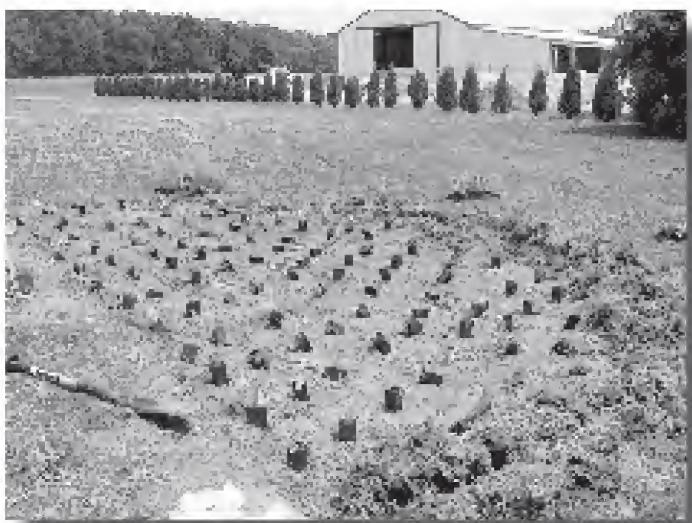


The rain garden doing its job. Photos by the author.

Rain Gets In

the McCloud garden was planted June 18–19. The garden collects water from half of the Nature Center roof. The rain garden is accessible year-round and information on rain gardens is available at the Nature Center. We also used some plants around the base of the greenhouse, where the rain sheets off the metal flange at the bottom of the windows—a great use of wet-tolerant natives.

A few plants left over from the McCloud garden were planted at the park office in Danville by a Master Gardener, replacing mostly exotic species that had become overgrown. The beds, situated on the north and east sides of the building, are another way we are showcasing using native plants in the landscape.



Planting at McCloud Nature Park near North Salem.

This sign at the Danville site credits the project's many partners.

INPAWS Small Grant Program Guidelines

Deadline February 1, 2010

The Small Grants Program supports projects that are in line with the mission of INPAWS. Awards of up to \$500 can be used in conjunction with other sources of funding to promote the appreciation, preservation, conservation, utilization, and scientific study of the flora native to Indiana and to educate the public about the values, beauty, diversity, and environmental importance of indigenous vegetation. Successful awardees **must prepare a report to share with the INPAWS membership** after the project is completed. From time to time, **larger awards may be made** for special projects by presentation to the Executive Committee. All requests must be made in writing with a clear statement of how the award would further the mission of INPAWS and benefit our membership.

Application Procedure

1. Cover sheet, including: name of project; amount requested; location; applicant/contact person information (name, address, telephone, email); new or existing project; category that best describes the project—research, training, education, conservation and habitat, demonstration garden, etc.; prior INPAWS funding

2. Text of proposal, not to exceed two pages:
(a) Summary of the project, not to exceed 50 words;
(b) Clear, concise description of the project, including: How does the project further the INPAWS mission? Why is the project needed? Specific objectives to be achieved. Specific information on how INPAWS grant funds would be used, including a detailed species list of all plants and seeds to be used. Who benefits from the project—number who benefit and how. Names of organizations involved, if any, with a brief description of each, including number of members. Financial resources committed to the project from other sources, if any. Anticipated starting and completion date of the project.

3. Budget sheet, showing: (a) labor, material, and program costs; (b) sources and amounts of funds already raised, if any; and (c) total cost of the project.

Two Ways to Submit Your Proposal

E-mail (preferred): Send 1 copy to smallgrants@inpaws.org, noting the name of your project in the Subject line.

Land mail: Send 4 copies, postmarked by February 1, 2010, to INPAWS Small Grants Program, P.O. Box 30317, Indianapolis, IN 46230-0317.

Rip Van Winkle Plants

This year, the lower portion of our town park ponded for the first time since 1990–1991, replacing soccer balls with woodducks. After 18 years of drought and mowing, aquatics and other moisture-loving plants took the place of lawn grass. These plants owe their return to long-term dormancy; their seeds remain viable but inert until the right hydrology activates them.

Reappearing plants included small “belly plants,” ground-huggers like marsh purslane (*Ludwigia palustris*), slender false pimpernel (*Lindernia anagallidea*) with long-pediceled whitey-blue tubular flowers, and wheelwort (*Rotala ramosior*) with white tooth-like petals set in the rim of a red “bowl.”

Sedge family (Cyperaceae) members included easily overlooked producers of seed for small mammals and wildfowl, like airy-branched autumn sedge, a.k.a. fimbry (*Fimbristylis autumnalis*), dwarf bulrush (*Hemicarpha micrantha*), and state endangered Hall's tufted bulrush (*Scirpus hallii*), whose seeds resemble small black globes with raised latitudinal lines.

Tufts of larger blunt spike rush (*Eleocharis obtusa*) and horsetail (*Equisetum arvense*), cousin to the pioneers' scouring rush (*E. hyemale*), dotted the mud.

Two new plants showy enough for the water garden appeared: ditch stonecrop (*Penthorum sedoides*), a saxifrage; and water plantain (*Alisma* sp.), whose small white flowers appear on architectural, open branches above somewhat spoon-shaped leaves.

Disappearances included blue flag iris (*Iris virginica shrevei*) and wicket spike rush (*Eleocharis rostellata*), a species “noted for its tendency to arch over and root at the tips, producing croquet wickets that grab at one's feet,” according to Swink and Wilhelm.

The most beautiful reappearance came from the carnivorous common bladderwort (*Utricularia vulgaris*), absent from the marsh near me for eighteen years. Here, thousands of dancing, yellow, orchid-like flowers would command an artist, “Paint this marsh yellow.”

This and many other bladderworts lack roots. With the right hydrology, masses of feathery leaves and their attached bladders support the flower stalks above water. (The bladders suck in minute water creatures when they trigger the hairs on the bladder door, causing it to snap shut.) Reproduction is by turions (winter buds), very tight balls of leaves which sink to the bottom of the dried-up or frozen pond. They lie in the mud and expand only when the hydrology is right.

A resurrection plant, you might say.



Ditch stonecrop (*Penthorum sedoides*). Courtesy chestofbooks.com.

Some Books

Swink, F.A. and G.S. Wilhelm. *Plants of the Chicago Region*. 4th Edition. Indiana Academy of Science, 1994. ISBN: 1883362016.

Yatskiewich, K. *Field Guide to Indiana Wildflowers*. Indiana University Press, 2000. ISBN: 0253214203.

FIELD NOTES

Feedback Sought

Our own Kay Yatskievych, Publications Consultant for Missouri Botanical Garden Press, invites questions and comments on her revised personal web page, where she has posted 27 sample Indiana Species Pages, a sample Flower Finder Page, and one Character Comparison Page. Kay continues to work on the *Annotated Checklist of the Vascular Flora of Indiana*. Visit www.mobot.org/MOBOT/Research/curators/kay.shtml

New! Invasive Species Council for Indiana

Using a pen made from the invasive grass phragmites, Governor Mitch Daniels signed into law House Bill 1203, which creates the state Invasive Species Council. The council was the primary recommendation of a legislative task force charged with studying the environmental and economic impacts of invasive species in Indiana.

Invasive species cost Hoosiers millions of dollars each year, and as the rate of invasion increases, the need for better communication and coordination is critical. "Establishing an Invasive Species Council will allow all of us—regulators, other state and federal entities, researchers, industry, and conservation groups—to discuss this issue and provide focus and direction on the most cost-effective and important strategies to deal with prevention, early detection, and control and management," says Ellen Jacquart, director of stewardship for The Nature Conservancy and head of INPAWS's Invasives Education, who chaired the task force. "The sooner we act the more effective and less costly our efforts will be."

The Council will be housed in the Purdue College of Agriculture. Besides enhancing consistency and effectiveness in the prevention, early detection, rapid response, and management of invasive species, the Council will recommend project priorities and funding and recommend a lead state agency to develop invasive species inventories and data management systems. It will convene or support an invasive species meeting at least once every two years to update best practices and explore research findings.

For more information about the threat of invasive species in Indiana, visit www.nature.org/indiana.

Jackson/Schnyder Nature Preserve to Be Dedicated

Sycamore Trails Resource Conservation & Development Council, Inc., has acquired property in Vigo County near St. Mary of the Woods College through a donation from Dr. Marion Jackson. The Ouabache Land Conservancy, a part of Sycamore Trails, has been instrumental in this process and has been working on a management plan. A section has been planted to native prairie habitat, and erosion problems have been addressed. The property will be dedicated as an Indiana DNR Nature Preserve in a ceremony to take place on site October 31 at 10:00 a.m. Information at www.sycamoretails.org.

Coming Up

Tuesday, November 3

Gardening for Life: An Evening with Doug Tallamy

Clowes Memorial Hall, Butler University, Indianapolis. Doors open 6:30 p.m. for displays; lecture at 7:30 p.m., followed by book signing and refreshments. Free, no tickets required.

Saturday, November 7

16th Annual INPAWS Conference, Plant Communities: What to Plant Where—and Why

Athenaeum, Indianapolis. 8:00 a.m. to 5:00 p.m., with keynote speakers Don Leopold and Steve Apfelbaum. Registration required, discounted before October 24. Download brochure at www.inpaws.org.

Monday, November 23

Deadline for Next INPAWS Journal

See submission instructions on page 2.

February 1, 2010

Deadline for Small Grants Program Applications

See details page 9 or visit the INPAWS website.

Watch for announcements of INPAWS events and field trips in the mail, via e-mail, and at www.inpaws.org.

Garden Tour Kudos

INPAWS' inaugural native plant garden tour garnered rave reviews from the lucky participants. The gardens were fabulous, the weather cooperative, and the hosts and greeters most welcoming.

Our thanks to event organizers Nancy Hill and Kelly Spiegel; garden owners Hilary Cox (A Country Garden), Fiona Solkowski (Gimme a Break), Chris & George Plews (A Jens Jensen Inspiration), Ruth Ann Ingraham (Broad Ripple Bungalow), Peine Engineering's Rich Peine (No Work at Work), and Kenneth Kesler, M.D. (Prairie by the Pool); and greeters Sue Nord Pifer, Keven Tungesvick, Karen Hartlep, Linda Freund, Ron Stoner, Christy Krieg, Ellen Jacquart, and Julian Gammons.

Swamp Angel Nature Preserve



Swamp Angel Nature Preserve, a 92-acre complex of uplands, wetlands, fen, bogs, and kettle lakes, is one of the most diverse and scenic natural areas in Northeast Indiana (Noble County). The waters of the swamp are clean and clear but very alkaline, so only certain species can survive this harsh environment. Carnivorous pitcher plants, orchids, and sundews are common in the bogs, and poison sumac covers the shrub swamps. Massive oaks thought to be 200 years old can be found

on gravelly kames, a habitat essential for the Massasauga rattlesnake and spotted turtle.

Access to this fragile site is controlled, and INPAWS members were fortunate to be expertly guided in June 2009 by Beth Mizell of The Nature Conservancy, which owns and manages the preserve, and John Ervin of Indiana DNR Division of Nature Preserves. Photo by Tom Hohman. See additional Swamp Angel photos at www.inpaws.org.



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A Giant Leap Forward

Young Hoosier Conservation Corps Tackles Invasives

*Mike Mycroft, Chief of Natural Resources
Indiana State Parks & Reservoirs*

Many of us involved with working to maintain natural areas and specific habitat find the battle against invasive plants a seemingly endless war. Though progress may await those of us with will and means in any given year, additional pesky occurrences and species seem to present themselves regularly with each growing season. I know many have experienced the accompanying "one step forward, two steps back" feeling in such cases.

The natural areas and game management units at Indiana's 24 state parks and 9 reservoirs are home to many special communities that flourish to the benefit of plants, animals, and people alike. The parks alone have approximately 100 rare, threatened, and endangered species of plants that inhabit some unique areas.



Governor Mitch Daniels greets YHCC crew at Chain-O-Lakes worksite. Photo courtesy State of Indiana.

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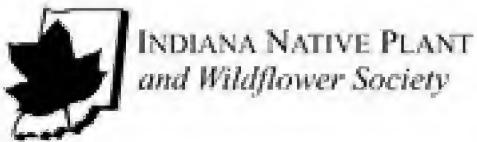
The reservoirs provide diverse habitats for game animals that attract approximately 50,000 hunter efforts annually. Though the primary use and purpose is different between parks and reservoirs, a common challenge of managing invasive plants is shared by both.

Most years, you can find many parks and reservoirs using small hand crews and heavy equipment to address invasive species here and there around properties throughout the system. This has been done for some time, primarily as funding becomes available. Naturally, that never seems to be quite as often as one would like. Using a can-do attitude and a spirit of "do what you can, when you can" the Division of State Parks & Reservoirs actively managed 600 acres of invasive

plants in 2008—equivalent to one-quarter of the average state park! That's something many of us continue to be proud of. The volunteers, local groups, and sister agencies that helped contribute to that acreage remain just as proud. I like to think of the effort as small, annual baby steps on the way to conquering a larger obstacle over time. But I also wondered if we couldn't jump-start the eradication process in some way.

Colleagues and I often talked about how one or two really solid years of effort could go a long way in managing our issues with invasives. Most of these conversations had all the elements of

Continued page 4



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INPAWS JOURNAL is published quarterly for members of the Indiana Native Plant and Wildflower Society. Material may be reprinted with the permission of the editor.

All are invited to submit articles, news items, and event postings of interest to our membership. Acceptance for publication is at the discretion of the editor. INPAWS welcomes opposing viewpoints.

Please submit text and photos via e-mail to wwford@comcast.net or via land mail to INPAWS JOURNAL, 6911 Cabernet Way, Indianapolis IN 46278.

Submission deadlines for specific issues are as follows:

Spring
February 23 for April 1 mailing

Summer
May 23 for July 1 mailing

Autumn
August 23 for October 1 mailing

Winter
November 23 for January 1 mailing

INPAWS Mission

To promote the appreciation, preservation, conservation, utilization and scientific study of the flora native to Indiana and to educate the public about the value, beauty, diversity, and environmental importance of indigenous vegetation.

Membership

INPAWS is a not-for-profit 501(c)(3) organization open to the public. For membership information, visit www.inpaws.org.

News and Views

Information to be shared with INPAWS members may be directed to membership@inpaws.org.

2010 Officers

President	Tom Hohman	317-831-1715	hohmantr@aol.com
Past President	Nancy Hill	317-283-8345	nanhill86@earthlink.net
Vice President	Art Hopkins	812-372-2862	plant4art@yahoo.com
Recording Secretary	Janice Gustafro	317-596-0977	jgustafe@butler.edu
Corresponding Secty	Hilary Cox	317-272-4938	coxhilary@sbcglobal.net
Treasurer	Clare Oskay	317-786-7529	oskays2@iquest.net

Chapter Leaders

East Central	Alicia Douglass	765-623-4652	alicia.bever@gmail.com
Central	Ron Jackson (Acting)	317-782-3724	ronjack6@sbcglobal.net
South Central	Laura Hohman	812-824-3210	laura.hohman@gmail.com
West Central	Reni Winter	765-714-4288	reni@winterhavenfarm.us

Committee Chairs

Annual Conference	Jeff Pitts	317-363-1643	jpitts@ratioarchitects.com
Conservation	David & Jane Savage	317-873-5083	d5j8z2@indy.rr.com
Education	Dan & Sophia Anderson	317-849-3105	danjand1@sbcglobal.net
Grants & Awards	Jackie Luzar		jluzar@gmail.com
Historian	Ruth Ann Ingraham	317-253-3863	rai38@sbcglobal.net
Invasive Plant Education	Ellen Jacquart	317-951-8818	ejacquart@tnc.org
Journal Editor	Wendy Ford	317-334-1932	wwford@comcast.net
Membership	Mark Outcalt	317-257-3574	membership@inpaws.org
Native Plant Rescue	Kelly Spiegel	317-818-8492	kms@arsprod.com
Plant Sale & Auction	Ron Jackson	317-782-3724	ronjack6@sbcglobal.net
	Melissa Moran	317-295-2021	moranfam@gmail.com
Programs & Field Trips	Mike Homoya		mhomoya@dnr.in.gov
Speakers Bureau	Art Hopkins	812-372-2862	plant4art@yahoo.com
Website	Marcia Moore	317-940-8302	mmoore@butler.edu
Youth Outreach	Donovan Miller	317-283-1096	djbamiller@aol.com

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Flourishing

One August eighteen years ago, I saw seven or eight tiger swallowtails fluttering on a large pinkish-purple bloom and thought, "What in the heck is that plant?" I bought a field guide and found out it was called joe-pye weed. Over the next few years I fell in love with wildflowers—I didn't really know the meaning of "native plant"—and started finding names for other flowers. About twelve years ago I was sitting at my desk holding a torn off piece of paper with the name Carolyn Harsted scribbled on it with a phone number. When I called Carolyn, she told me about the group called INPAWS, started in 1993 by Ruth Ann and Joe Ingraham, Bill Brink, and herself. She encouraged me to attend the upcoming plant sale in New Augusta. I did, I joined, and I bought the sweatshirt.

I wasn't around at the beginning, but I've been around long enough to watch INPAWS grow into the large, vibrant, enthusiastic, varied group of members that it is today. What a pleasure that has been! Any of you who doubt the uniqueness of INPAWS need to talk with our conference speakers from other parts of the country who shake their heads in amazement over what INPAWS does in a year's time and the commitment and depth and breadth of interest they see in its members.

I thank you for allowing me to serve as your president, and I appreciate the support of those officers who leave their posts along with me: Kevin Tungeswick, Bobbi Diehl, and Kathleen Hartman. The past two years have been the best combination of work and fun!

With the careful planting done years ago, the cultivation that will come from the dedicated and creative leadership of new president Tom Hohman, the officers and committee chairs, and the regular affectionate tending and participation from all of us, I see INPAWS flourishing in the years ahead.

A beautiful, true native.

—Nancy Hill

Illustration by Gary Pendleton.

INPAWS PARTNERS

Wildlife Friendly Properties

Through a generous grant from the Indianapolis Power and Light Company, Indiana Wildlife Federation is helping land-owners install or restore wildlife habitat on their property.

In neighborhoods or workplaces, or on developing areas, property owners and planners can follow the guidelines established by the Wildlife Friendly Certification Program to create the kind of viable and sustainable habitat currently disappearing from Indiana.

The program requires property owners to

- 1) avoid, minimize, mitigate;
- 2) plant with natives;
- 3) control invasives; and/or
- 4) connect habitat areas.

Three different certification levels serve as a grading system based upon the number of program requirements met.

Union Township Fire Station recently earned Indiana Wildlife Federation's highest level of Wildlife Friendly Certification: Level 3 Ecosystem Steward—the first municipal building in the state to do so.

This certification marks the site as providing food, water, and shelter to local wildlife. The station boasts a wide array of native grasses and will provide homes for numerous wildlife species. More importantly, this site demonstrates the use of native grasses in stormwater management; the deep-rooted grasses allow for greater infiltration of stormwater rather than sending it downstream.

For more information, download the program brochure:

<http://www.indianawildlife.org/documents/Wildlife-FriendlyCertificationProgramBooklet.pdf>



Conservation Corps

continued from page 1

expertise, good planning, and execution—to an extent it was hard not to be excited walking away from such dialogue. But the inevitable WHO and HOW would usually grab our elbows and walk us back to reality.

Our world changed greatly on May 1, 2009, when about 1,500 freshly recruited members of the Young Hoosier Conservation Corps began work at each state park and reservoir property. As part of the federal Recovery Act, these young men and women came forth and provided the WHO and HOW we had been searching for.

In addition to painting, drainage work, trail/fence improvements, structural repair, erosion control, mowing, and cleaning, many of these folks were trained and put to work on invasives projects throughout the system. Needless to say, it was a unique experience and education for many. Though the days were often hot and project sites rather remote, most of the YHCC made the best of it and even enjoyed it. I know of two brothers on an eradication crew who even made the work competitive, almost like an old fashioned logging contest, seeing how much acreage they could each manage using hand saws to cut bush honeysuckle.

According to Aron Showalter, reservoir biologist at Patoka Lake, "The YHCC crew has given Patoka those extra sets of hands that were so desperately needed. They have been instrumental in many of our projects that have been neglected in past years due to time and personnel issues." Patoka had long had invasive plant colonies of *Ailanthus* trees and the ever-present autumn olive. With the herbicide provided for the program, the crew was able to cut and stump-spray tree groves in relative short order. They were then sent along 12 miles of



Before and after photos at Salamonie Reservoir. Hoosier Youth Conservation Corps crews cleared acres of understory of invasive honeysuckle. IDNR photos.

lanes, utility corridors, and field edges to foliage-spray autumn olive. "These species had been tolerated for many years, but the YHCC crew enabled us to move from tolerance to eradication," Showalter said.

Sam Boggs, assistant manager at Pokagon State Park, recently lamented that the ongoing endeavor against invasive plants, begun with a goal of complete removal, often morphed into an encounter with a massive enemy that would not surrender. "The YHCC employees have offered us the opportunity to use the technique of sending forces into the Potawatomi Nature Preserve and selectively removing the aliens from the population," said Boggs. "Using this technique is seemingly noticeable only to the trained eye and was not feasible without the numbers that the YHCC program has offered."

Showalter and Boggs are only two examples of those among us who got to witness great progress toward managing invasives this year. In the end, nearly 5,000 acres of invasives were actively managed on state parks and reservoirs in 2009. We are truly thankful for the progress the YHCC made this year. With any luck, we may experience the same success next year and get another opportunity to forge ahead.

Jobs with Young Hoosier Conservation Corps are limited to Indiana residents between the ages of 16-24 who come from economically disadvantaged families. Preference is given to veterans and those receiving unemployment benefits. For more about the program, visit <http://www.in.gov/yhcc/>



INPAWS and Its Conservation Partners Invite You to...

**The 6th Annual
Conservation Day at the Indiana
Statehouse**

**Tuesday, January 26, 2010
9:30 a.m. – 2:00 p.m.**

Sponsored by Indiana Conservation Alliance (INCA), a statewide network of over 30 nonprofit organizations providing a unified voice for the protection and wise use of natural resources to enhance our quality of life. INCA priorities for the 2010 legislative session are:

1. Reauthorization of the Lakes Management Work Group, which takes public comments and develops solutions for problems affecting Indiana lakes.
2. Passage of a Renewable Electricity Standard in Indiana.
3. Passage of a resolution to limit phosphorous in lawn fertilizer.

For best impact, contact your legislator ahead of time and invite him or her to attend or meet with you. Conservation Day is a great opportunity to show our elected officials that Hoosiers care about protecting our precious natural resources and preserving our environment. It's your chance to engage legislators in the matters that mean most to us. You'll also meet and network with like-minded people in conservation organizations throughout the state.

The more people who come to Conservation Day, the bigger the impact, so carpool with co-workers, friends, and family or take a brisk walk to the statehouse, and help make a difference!

Thanks to sponsor donations, registration for Conservation Day is FREE. Pre-registration preferred by January 16 at www.nature.org/indiana (click on Events) or 317-951-8818.

9:30 a.m. Discussion of Conservation Priorities
Indiana Government Center South

12:30 p.m. Reception with Indiana Legislators
North Atrium, Indiana Statehouse (dessert buffet, conservation awards, displays by INCA partners)

Location: 200 West Washington Street, Indianapolis, IN 46202. Park at White River/State Museum State Park or Circle Center Mall.

INPAWS Talks Native Plants at Hoosier Outdoor Experience

Tom Hohman, IDNR, INPAWS President-Elect

When the first annual Hoosier Outdoor Experience was held September 25-27 at Ft. Harrison State Park, INPAWS was there demonstrating the connection between native plants and wildlife.

The Experience aims to give visitors without a background in outdoor-related activities a chance to learn from people already participating in those activities, and often passionate about them. The hope is to ignite interest and overcome the initial reluctance that stems from uncertainty as to how to get started.



Many varied interests were represented at this inaugural event presented by the Indiana Department of Natural Resources, from fishing, boating, and hunting to hiking, bird watching, and off-road vehicles.

In addition to the usual INPAWS native and invasive plant display items, the INPAWS booth included information on butterflies and the migration activities of the monarch butterfly. The intent was to show the connection between native plants and wildlife.

On Saturday, Reni Winter, owner of Winterhaven Wildflowers & Native Plant Preserve and president of INPAWS West Central Chapter, explained to visitors the life history of the monarch. She demonstrated the tagging of monarchs to help track their migration. Ann Richardson of the Monarch Larva Monitoring Project brought her displays and butterflies on Sunday.



Losing Paradise?

Art Exhibit Showcases Endangered Plants

Kay Yatskievych, Editorial Consultant, Missouri Botanical Garden



Goldenseal (*Hydrastis canadensis*).
Watercolor by Gillian Harris.

INPAWS member Gillian Harris's beautiful watercolor painting of goldenseal (*Hydrastis canadensis*) was accepted for inclusion in the art exhibit "Losing Paradise? Endangered Plants Here and Around the World." The exhibit includes 44 works showing plants that have been listed as endangered or threatened in the country in which they are found.

In addition to Gillian's goldenseal, seven other plants that are found in Indiana are represented in the exhibition: Cyperus-like sedge (*Carex pseudocyperus*), Pitcher's thistle (*Cirsium pitcheri*), pink lady's slipper (*Cypripedium acaule*), yellow lady's slipper (*Cypripedium parviflorum*), wood lily (*Lilium philadelphicum*), glade mallow (*Napaea dioica*), and royal catchfly (*Silene regia*).

The exhibit was organized by the American Society of Botanical Artists with assistance from the Smithsonian's National Museum of Natural History and also from the Center for Plant Conservation, which is housed at the Missouri Botanical Garden. The exhibition catalogue states that its purpose was "to tell two stories, those of the continuing relevance of botanical art and the often neglected story of plant endangerment."

In his introduction to the catalogue, MBG President Peter Raven says that the work of the artists makes it clear that plants are "a priceless resource.... Each is the unique product of billions of years of evolution, a storehouse of properties that we are only beginning to understand, and a source of opportunities for enhancing human life in the future as well as for nurturing our souls."

The show opened at Missouri Botanical Garden and was on view there through November 19, 2009. Showings scheduled for 2010 include:

Jan 16–Apr 11 Chicago Botanic Garden, Glencoe, IL
May 6–July 25 New York Botanical Garden, Bronx, NY
Aug 14–Dec 10 National Museum of Natural History, Washington, DC

The American Society of Botanical Artists is seeking other venues for the exhibit; check their website for updates (www.amsocbotartists.org). The full-color catalogue of the exhibition, also available on the website, provides information about each of the plants and the artists who depicted them.

Both Winter and Richardson fascinated visitors by recounting the incredible journey of the monarch in its annual migration to isolated regions of Mexico. They also explained how the future of the monarch is imperiled by loss of habitat and reduction in numbers of the larval food plant, milkweeds.

A big hit with visitors was INPAWS's new interactive display on butterflies and native plants. (See story page 16.)

Although cool, rainy weather kept the crowds smaller than hoped for, Hoosier Outdoor Experience was considered a success.

IDNR has already announced that they will hold the event again in 2010, on September 18 and 19. Long-term forecasts predict warm and sunny weather for both days! So mark it on your calendar and plan on coming. Even if you are already active in outdoor activities, you will find new ideas for things to do or organizations with which to become involved.

For more information, visit www.in.gov/dnr/5009.htm.

Photos by Wendy Ford and Tom Hohman.

Into the Woods

In the fall of 2009, Letha's Youth Outdoors Fund funded two more classroom applications, bringing the year's total to ten.

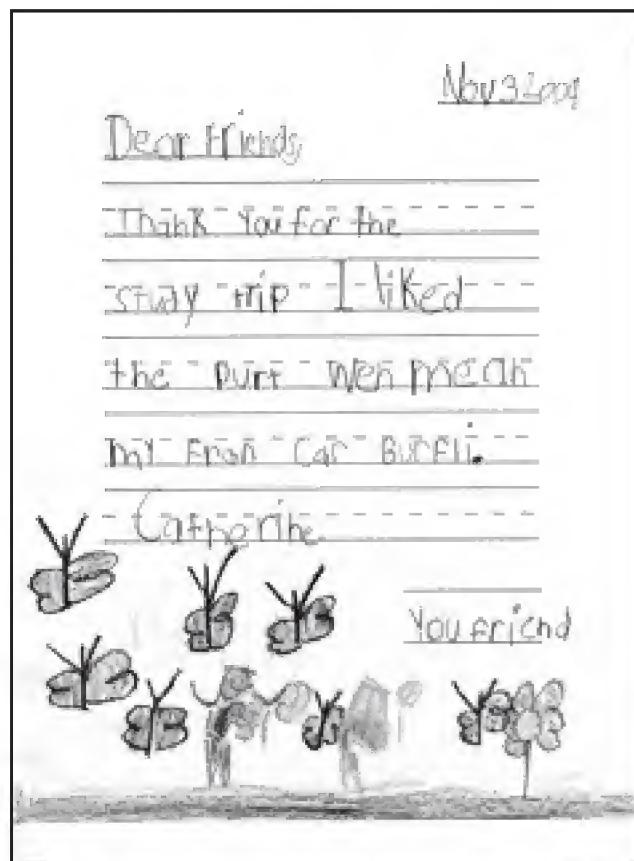
The first grant went to a Bloomington High School biology class that sought to participate in a watershed analysis project in cooperation with the Sycamore Land Trust. The application evidenced a clear research focus with a goal of producing a formal report showing comparative analyses between two sites. The funding request was primarily for transportation of 56 students to take water samples, make some tests in the field, and return to the classroom for further testing. Sycamore Land Trust and Monroe County Parks staff provided leadership to the activity. We look forward to a promised copy of the final report of this project.

The second grant was for a first grade field trip for 150 students to Eagle Creek Park in early November. Time of year suggested possible weather concerns, but post-trip photos show sunny conditions and excited children running about with insect nets, turning over rocks to see what's underneath, and kicking up leaves on the forest floor. Inside the Nature Center they were introduced to box turtles, opossums, and frogs. Thank-you letters composed by the students proved a challenge to decipher but were much appreciated. Many spoke of the simple joy we all know of walking in the woods. What made those comments especially poignant was a comment in the application where the teacher wrote, "Some of our children believe that elephants, tigers, bears and other nonnative species [occupy Eagle Creek Park]. We would like to give the children the opportunity to explore the woods [and] discover what animals actually live in Indiana."

The Bloomington biology teacher sounded the common concern that it is becoming increasingly important for students to experience more of the natural world: "As we become more and more technologically rich, I see students becoming more and more iso-

lated from their environment, with many of my students actually expressing fear of the outside world."

Linking students to the natural world is the primary mission of Letha's Youth Outdoors Fund. We express our sincere thanks to the INPAWS members and friends who have contributed funds to make this effort possible.



REFLECTIONS

My Garden

Gene Bush, Munchkin Nursery

Sitting on my garden bench under the pine trees, the quiet was similar to the still of a cathedral. Like a child at church, I began to fidget after ten minutes or so, right on schedule with children of most any age.

Poking the toe of my work boot into the mulch, I nudged a fallen branch. It rolled over to reveal a busy colony of roly-poly bugs. Succumbing to temptation, I picked up the rotting branch so I could touch the midsection of each bug and watch it curl into a tight ball. Pillbugs are supposed to be a bane to gardeners, but I could not bring myself to harm the colony I had uncovered. They were doing what roly-polys normally do—hide under dead stuff and dine on our discards. As I continued to reflect on the roly-poly destiny, each one eventually uncurled and headed for someplace out of the light. It was time for the next distraction.

The eternal question then presented itself to me: Do little boys of any age find frogs, or do frogs find little boys? There one sat, staring at me with those two enormous eyes, sending out signals of "pick me up." A cynic in my old age, I questioned this come-on. Was his attention directed at me or the roly-poly colony I had uncovered? Attraction or lunch? I decided it was lunch and let him remain where he sat. The frog decided I was not going to bite and he needed to, so he hopped on in short bursts, disappearing as his green form blended into the foliage and shadows of my flowers.



Roly pols courtesy of dkimages.com.



Dear [INPAWS] Friends: Thank you for the study trip. My favorite part was...when I cech bugs (DeWayne)...wen me an my fren cac burfli (Catherine)...the frog (Zionie)...the boxrttol becos it lookt like a ninjutrttol (Christopher)...woken in the wuds (Cristina, Jihad, Yosaria, Jonathan)...Your Friend [First Graders of Deer Run Elementary]

Swinging around on the bench to get up and go back to weeding in my garden, I noticed movement in the bird house in a pine at the edge of the woods. Too late for the house to be used by the chickadee, I mused; they had raised their family and taken flight. Careful watching confirmed that the movement was all wrong and, besides, chickadees did not have necks that long. A garter snake had climbed the tree and moved into the bird house! Giving him the benefit of the doubt, and having seen many Disney films, I assumed the snake was subletting from the chickadee family.

Redirecting my attention from the garter snake residence to my weeding, I saw a butterfly flutter by on her way to the next flower. Animal tracks told me that, sometime before dawn, deer had walked through the garden. I could not see any damage from their browsing, but I did notice that Ms. Bunny had chosen to cut my azalea stems in half—helping me prune, I suppose, but a more selective sense of timing would have been appreciated.

And all these years I had thought this was *my* garden...

Gene Bush writes and gardens in southern Indiana. His mail-order nursery at www.munchkinnursery.com specializes in ornamental shade plants.

New INPAWS Members

CENTRAL

Robert & Nancy Aram
Susanne LaMar Barnett
Phil & Sherry Cartwright
Jo Caudill
Jane Diedrich
Joan Haaf
Ilonka Herber
Beth A. Hirtzel
Glenn Lange
Tina Mackoy
Bill McKnight
Tilden & Cathy Mendelson
Christopher E. Moore
Edward Myers

SOUTH CENTRAL

Nancy E. Myers
Sarah & Paul Nahmias
Mark & Tarera Pauli
Jeff Pitts
Jim Plant
Michael Quinn
Maria Teresa Rizzo
Carl Smith
Katie & Jim Smith
Ella Spreckelmeyer
Joe & Elaine Whittfield
Deb Woodward

SOUTH CENTRAL

Casey Carrigan
Julie Davis
Diana Elkins
Betsy Gast-Bray
Dennis Hauersperger
Bennita & John Kennedy
Greg Meyer

WEST CENTRAL

Violet Seiwert
Ed Zschiedrich

OUT OF STATE

Sean Donovan
Jean Durbin

EAST CENTRAL

Alexandra Forsythe
Judy Schulz
Joann & John J. Smith

What's In a Name?

Rare Plant Discovered in Harrison County

Patricia Happel Cornwell,
INPAWS Member

As a youngster, I roamed my family's farm on foot and on horseback. I knew when and where to find grape hyacinth, fire pink, spotted jewelweed, black-eyed Susan, mistflower. I remember the moment I saw my first rose pink, blooming in a hay field after the baler had come and gone. I remember my awe at the chartreuse star outlined in scarlet at the heart of each pink bloom.

After living in New Albany for many years, in 1997 my husband John and I decided we wanted "more trees and fewer people," so we moved to 19 acres in Harrison County, six miles from the Ohio River. We share this place with many creatures, and every time I think there is nothing left to learn, I am humbled by another discovery.

Last August 10, I noticed an unfamiliar plant at the edge of our woods. Above an upright six-inch stem were six sets of leaflets, the lower three smaller by half than the upper three. Each set was composed of three pairs of paddle-shaped leaves which, being broader at the tips than at the stems, looked as though they had been put on backwards. In the leaf axils hung three tiny white flower buds. It was faintly reminiscent of the low-growing sensitive-pea (*Cassia nictitans*) at the corner of the garage.

I photographed the plant and browsed six field guides for white flowers and opposite obovate leaves. I found nothing.

Five days later, the white buds were drooping, five-petaled yellow blossoms. I took more pictures and went back to the books. Wild senna (*Senna marilandica*) and partridge-pea (*Cassia fasciculata*), big brother of sensitive-pea, have similarly pinnate but pointier leaves and hold their flowers erect.

One by one, the flowers dropped their petals, unveiling two slender pods. Over

the next few days, the pods grew like Pinocchio's nose until they were two and one-half inches long.

It had been years since I had seen a plant I couldn't identify! I got out my books and dug in my heels. Since my Rumpelstiltskin plant most closely resembled the sennas, I studied every pea-family description and footnote, with or without photo. Finally, in Kay Yatskievych's *Field Guide to Indiana Wildflowers*, I came upon her drawing of the egg-shaped leaves of blunt-leaved senna, *Senna obtusifolia*. Even without a photo, I had my ID.

Senna *obtusifolia* is a rare native in Indiana. According to Yatskievych's 2000 guide, the plant had been found only in Dearborn County, 90 miles northeast of Harrison County. She has since received a report of it in Spencer County, 38 miles west of Harrison, but says, "It's along a railroad, so was probably introduced."

Michael Homoya of the Indiana Department of Natural Resources says blunt-leaved senna has also been reported in Pike and Daviess, two contiguous counties 70 miles northwest of Harrison and 30 to 45 miles north of Spencer. All five sites are in the southern third of Indiana.

Observation of my rare find continued. In late August, morning temperatures slipped into the low fifties, and I found the sennas had folded up their leaves like prayer plants (*Maranta leuconeura*).

In September, I found two more blunt-leaved sennas at the edge of our woods. Each was 19 feet from the first plant, in opposite directions. One was 11 inches tall with only two sets of leaflets and one pod. The other was a mere four inches tall, with two sets of leaflets and no pod. I walked the entire woods border and fence line but found no more specimens.

My references told me blunt-leaved senna typically blooms in August or early September and tolerates drought and poor soil. It is a slow-growing annual, but can reach two feet tall. Although this species prefers full sun, my specimens may be "shorties" because they germinated in deep shade under low-hanging trees.

On September 29, I discovered that the four-inch senna had produced a belated flower bud. I began a daily vigil to see if it would bloom now that temperatures and the duration of daylight were dropping. It was in a dark, unpromising spot behind a log pile, and its big sisters had already gone to seed. The weather turned rainy. At 2:00 p.m. on October 21, I found the little green optimist in a narrow shaft of light where I had thought none could reach. On October 24, it enjoyed another brief hour of sunshine. Its petals appeared slightly looser. Would it bloom after all?

The wind blew lustily all the next day, and the following morning the senna's bud and half its leaves were gone. The larger sennas had let go their brown seedpods.

The species grows in 25 states, 24 in the eastern U.S. plus—take a giant step—one in California. The plant also grows in Puerto Rico, the Virgin Islands, and Hawaii. In most of these locales, it is introduced (it's a safe bet no bird flew cross-country to plant that first senna on the West Coast). In our region, blunt-leaved senna is found in a few counties of Kentucky, Tennessee, and Illinois, although it is absent from my Kentucky wildflower books. Oddly, Ohio is a total blank in this senna's map.

Senna obtusifolia is also known as "sickle-pod," because its pods resemble a curved sickle blade, or as "Java-bean" or "coffeeweed." It was previously considered a bean of the *Cassia* genus. (Two plants of the *Arabis* mustard genus also bear the confusing common name of "sicklepod".)

Blunt-leaved senna is not welcome everywhere. An Illinois website says it invades soybean crops in the southeastern U.S. and even contaminates soybean oil if its toxins are not removed in processing. Wiley InterScience, a weed website, calls *Senna obtusifolia* an "invasive weed of northern Australia," where it reportedly has a significant negative impact on agriculture. Scientists have found a saving grace, however. This senna's seeds have edible nutrients, making it a potential pet food ingredient.

Two good sites for more on *Senna obtusifolia* are <http://plants.usda.gov/java/profile>

and www.illinoiswildflowers.info/prairie/plantx/sicklepodx.htm.

When we first moved to our country home, I told a city friend about seeing birds here that I never knew existed and showed her a picture of a towhee. She asked, "Now why is it that you want to know their names?" I stammered, "Because—they're the only neighbors we have out here."

I've been thinking about that question ever since. Why am I driven to know the names of wildflowers, trees, birds, snakes, turtles, insects?

What I couldn't articulate then I can now. "Humans seldom value what they cannot name," and, conversely, we seldom name what we do not value. The earth's biodiversity will be preserved only if we stop to ask our neighbors' names. That includes people who look or speak differently than us, birds and animals who share our space, and even that rare, odd little plant at the edge of the woods.

"Humans seldom value what they cannot name." —Biologist Elaine Brooks, quoted in Richard Louv's *Last Child in the Woods*



Senna obtusifolia flower (left) and seed pod (above). Photos by the author.



Japanese Chaff-flower

Achyranthes japonica

Richard B. Lyons, Indiana Master Naturalist Volunteer

It's an all too familiar story of a non-native plant finding its way to our shores and discovering that conditions are ripe for it to go hog wild.

Japanese chaff-flower (*Achyranthes japonica* [Miq.] Nakai) was first reported in the U. S. by Hal Bryan (Kentucky Division of Environmental Analysis) and John MacGregor (Kentucky Department of Fish and Wildlife). In 1981, they found and collected a specimen on the banks of the Tug Fork of the Big Sandy River in Kentucky.

Since then it has rapidly spread along the Ohio River and its tributaries. It can probably now be found in every Indiana County that borders the Ohio River, not to mention its dispersal in Kentucky and Ohio. It has wreaked havoc on our native flora ever since.

A fierce competitor, Japanese chaff-flower easily outcompetes our native wildflowers. Once established in an area, it spreads aggressively, forming dense rhizomatous colonies that crowd out other vegetation. It was originally reported as a plant of shaded river valleys and flood plains, but disturbingly, it has recently been found spreading inland along ATV and hiking trails, into open fields, and high up the slopes of river bluffs.

A*chyranthes japonica* was first reported in Indiana in 2003 by Richard Maxwell and William E. Thomas, botanists from the Indiana University Southeast Herbarium. Its spread in our state has been rapid and damaging. It is posing a grave threat to many of our native species and may prove to be one of Indiana's and the nation's worst invasive plants.

Look for this perennial in mid-summer when it undergoes a burst of growth, attaining a height of 1 to 1.5 meters (3 to 5 feet). It starts to flower around mid-July and continues through September. The leaves are simple, entire, and opposite. Flowers are dense green cylindrical spikes with fruits developing on the lower part of the spike as flowering progresses. Fruits are drooping, reflexed, achenes containing an individual ovate seed. Plants can have from 10 to 60 fruits per flower spike with 20 to 40 spikes per plant.

When in seed, it resembles lopseed (*Phryma leptostachya*), but lopseed has serrate leaves and Japanese chaff-flower's leaves are entire. Before it flowers, it is hard to distinguish from the rare eastern bloodleaf (*Iresine rhizomatosa*), but after flowering it is readily discernable.

As a member of the Amaranths, Japanese chaff-flower shares the family capacity for prolific seed production. Mature plants can produce five hundred to two thousand seeds each. When one takes into consideration its natural tendency for dense colonization, with as many as one hundred mature plants in a square meter, and its high seed production, it's easy to see why this plant is spreading so rapidly. The seeds are dispersed mainly by floodwaters, but they also cling to clothing, animal fur, and feathers by needle-like bracts. Fruits can persist on the plant well into winter, attaching themselves to any passerby. In many cases they are being transported to sites a great distance inland from our waterways where they are developing new seed-producing colonies.

You can help prevent the spread of this invasive by early identification and eradication. As with many new invasives, methods to deal with it are still being worked out. At this time, keeping it from establishing itself in an area is the best defense. Because of its well-developed root system, Japanese chaff-flower is impossible to hand-pull. The use of an herbicide may be the only viable method of eradication.

Photo by the author.



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What a Snow Plant Can Do

Barbara Plampin, PhD
Shirley Heinze Land Trust

*Take heart, teachers of slow learners.
Your pupil may become a highly
respected plant ecologist with a PhD!*

Part 1

Since his hiring as a data analyst at the Indiana Dunes National Lakeshore in 1983, my mentor, Noel Pavlovic, has been helping Dunes flora by studying their survival techniques, learning how to cope with invasives, and finding new native species in the Lakeshore. He takes time to rejoice with me about my finds and to help identify them.

Full title: Dr. Noel Bruce Pavlovic, Research Ecologist, Lake Michigan Research Station of the Great Lakes Science Center, Biological Resources Division, U.S. Geological Survey, Porter, Indiana. Noel's 16-page résumé looks frightening. Hear his infectious laugh at a meeting and examine the items on his office door, and you realize he's very approachable. Favorite item: clipping showing an Australian botanist demonstrating a rabbit-powered lawn mower.

As well as conducting research and being senior author of numerous reports and articles, including the *Pitcher's Thistle* (*Cirsium pitcheri*) Recovery Plan for U.S. Fish and Wildlife, and reading papers to learned and not-so-learned societies at home and abroad—for example, talking to Australian graziers about conserving arid land—Noel can explain the behavior of his dissertation topic, fame flower (*Talinum rugospermum*) whose flowers open only between 3:00 and 6:00 p.m., to Lakeshore hikers and the Karner blue butterfly lifecycle to third-graders. Noel is also Clerk of Duneland Friends Meeting and makes Bûche de Noël. Best of all, he's a super plant detective.

Botany captured Noel's interest when, at age six, he had to be dragged away from a red flower (snow plant, *Sarcodes sanguinea*) pushing up through Yosemite snows and continued when, in eighth grade, because of the eye problem from premature birth that still plagues him, he compensated for membership in the slow learners' class by teaching himself mushrooms.



Distributed largely in the West Coast states, native snow plant in full bloom. (Photo courtesy chestofbooks.com.) Inset shows buds that attracted our budding ecologist. (Photo courtesy Wikimedia.) In real life, both bud and bloom are a brilliant red.

A biology major at Earlham College, Richmond, Indiana, Noel later received a Graduate Diploma in Science with Merit from the Australian National University. (Another office door item: Noel's picture as a lanky, uniformed schoolboy when he was a Rotary International Exchange Student in Campbelltown, New South Wales.) While working as a Housekeeping Associate (janitor) at a Bloomington department store, after hours he taught himself sedges and grasses at the Indiana University Herbarium.

Next Time

Noel and plant detection, including bittersweet (*Celastrus scandens* and *C. orbiculatus*), blue hearts (*Buchnera americana*), and little elephants (*Spiranthes ovalis*).

INPAWS Small Grant Program Guidelines

Deadline February 1, 2010

The Small Grants Program supports projects that are in line with the mission of INPAWS. Awards of up to \$1,000 can be used in conjunction with other sources of funding to promote the appreciation, preservation, conservation, utilization, and scientific study of the flora native to Indiana and to educate the public about the values, beauty, diversity, and environmental importance of indigenous vegetation. **Successful awardees must prepare a report to share with the INPAWS membership** after the project is completed. From time to time, **larger awards may be made** for special projects by presentation to the Executive Committee. All requests must be made in writing with a clear statement of how the award would further the mission of INPAWS and benefit our membership.

Application Procedure

1. Cover sheet, including: name of project; amount requested; location; applicant/contact person information (name, address, telephone, e-mail); new or existing project; category that best describes the project—research, training, education, conservation and habitat, demonstration garden, etc.; prior INPAWS funding.

2. Text of proposal, not to exceed two pages: (a) summary of the project, not to exceed 50 words; (b) clear, concise description of the project, including: How does the project further the INPAWS mission? Why is the project needed? Specific objectives to be achieved. Specific information on how INPAWS grant funds would be used, including a detailed species list of all plants and seeds to be used. Who benefits from the project—number who benefit and how. Names of organizations involved, if any, with a brief description of each, including number of members. Financial resources committed to the project from other sources, if any. Anticipated starting and completion date of the project.

3. Budget sheet, showing: (a) labor, material, and program costs; (b) sources and amounts of funds already raised, if any; and (c) total cost of the project.

Two Ways to Submit Your Proposal

E-mail (preferred): Send 1 copy to smallgrants@inpaws.org, noting the name of your project in the Subject line.

Land mail: Send 4 copies, postmarked by February 1, 2010, to INPAWS Small Grants Program, P.O. Box 30317, Indianapolis, IN 46230-0317.

Tallamy Rocks Clowes Hall

In a return Indiana engagement initiated by INPAWS members Karen Hartlep and Kevin Tungeswick, University of Delaware entomologist Doug Tallamy drew a huge crowd to Butler University on November 3. More than 1,200 attended his lecture at Clowes Memorial Hall and stayed afterward to enjoy refreshments and get books signed. Copies of Tallamy's book, *Bringing Nature Home: How You Can Sustain Wildlife with Native Plants*, now in a second (paperback) edition, sold out before the lecture began.

Chief sponsors of the event were Butler University's Center for Urban Ecology, Friesner Herbarium, and Woods Lecture Series on Science and Mathematics. Additional support was provided by INPAWS, Indiana Wildlife Federation, IMA Horticultural Society, and Marion County Soil & Water Conservation District. Butler hosted an elegant pre-lecture speaker reception for leaders of the sponsor organizations and those who put up lobby displays—possibly the first Indianapolis social event for so many like-minded advocates!

Tallamy commented that nobody made him feel as welcome as folks from Indiana. The organizers, led by past INPAWS president Becky Dolan, considered the event wildly successful and basked in the glow for days afterward.

Central Chapter Icebreaker Scheduled

Central Chapter will shatter the winter blahs with its second annual Icebreaker on Saturday, January 16, 2:00 to 5:00 p.m., at the Indianapolis home of Ruth Ann Ingraham. Members are invited to bring refreshments to share and enjoy conversation with fellow native plant enthusiasts.

IPS Environmental Magnet School May Lose Learning Ground

Cold Spring School, Indianapolis Public Schools' K-8 environmental magnet, may lose title to the very woodlands and wetlands that are its teaching tools.

IPS administration proposes to sell the land, which is part of the wildlife corridor shared with Marian University's EcoLab southwest of the Cold Spring campus, in order to raise cash for the district's other pressing needs. Its preference would be to broker a deal with Marian University, but if that does not happen by April 1, 2010, the property may be offered for sale to the public, including developers.

Several INPAWS volunteers have been working with the Cold Spring staff and students on a native plant demonstration garden. Along with volunteers from other partnering organizations, they are gathering evidence to inform the IPS School Board before it rules on the administration proposal. For details, visit [www.landscapefancies.com/Friends of Cold School/index.htm](http://www.landscapefancies.com/Friends%20of%20Cold%20School/index.htm).



Annual Conference Kudos

Congratulations to the INPAWS Annual Conference Committee for an outstanding day of inspiration, edification, and camaraderie! More than 200 attended the conference at the historic Athenaeum, finding driving routes that enabled them to avoid conflict with the Indianapolis Monumental Marathon that passed within shouting distance.

Following President Nancy Hill's roundup of the year's activities, new officers were elected for 2010–11: Tom Hohman (president), Art Hopkins (vice president), Janice Gustaferro (recording secretary), Hilary Cox (corresponding secretary), and Clare Oskay (treasurer).

Speakers Don Leopold, Dan McCord, Steven Apfelbaum, and Shaena Smith addressed various aspects of the conference theme, "Plant Communities: What to Plant Where—and Why." Innovations introduced by the committee—no breakout sessions, and segments featuring Indiana's poet laureate Norbert Krapf and premier nature photographer Rich Clark—were well received.

Working behind the scenes to make this event a success were George Peregrim (conference chair and sponsorships); Christine & George Plews (sponsorships); Dan & Sophia Anderson; Karen Hartlep; Kathleen Hartman; Laura Hohman, Dee Ann Peine, Madelyn Peregrim (book sale); Mark Outcalt, Helen Harlan, Betty Randall, George & Betsy Wilson (registration); Nancy Hill (speaker hospitality); Ruth Ann Ingraham; Tom Hohman; Wendy Ford (publicity, program); and Marcia Moore (website).

Planning is already underway for the next conference, to be held November 6, 2010, at University of Indianapolis.

Thanks to all who provided feedback on the conference evaluation forms and who indicated their interest in volunteering for various INPAWS endeavors.

Coming Up

Saturday, January 16
Central Chapter Icebreaker
2:00 to 5:00 p.m., home of Ruth Ann Ingraham

Tuesday, January 26
Conservation Day at the Statehouse
9:30 a.m. to 2:00 p.m. (see page 5)

February 1, 2010
Small Grant Applications Due
Details opposite

Wednesday, February 3
INPAWS Council Meeting
3:00 to 5:00 p.m., Holliday Park Nature Center

Tuesday, February 23
Deadline for Next INPAWS Journal
Submission instructions on page 2

Saturday, May 8
INPAWS Plant Sales and Auction

Saturday, November 6
INPAWS Annual Conference
University of Indianapolis

Watch for announcements of INPAWS events and field trips in the mail, via e-mail, and at www.inpaws.org.

Serviceberry an INPAWS Fave

Some months ago *Horticulture* magazine asked native plant societies to name their favorite native plant. A lively e-mail discussion ensued among a small ad hoc group of INPAWS council members, and eventually we agreed on the serviceberry. Bobbi Diehl kindly wrote up the rationale.

The article appears in the December 2009 issue, the INPAWS quote on page 58. The editor of *Horticulture*, apparently a recent convert to natives, mentions in a sidebar (titled "Going Native") that she is planning an all-native garden at her new house. Now that's progress!



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Jigsaw Puzzle a Promising Outreach Tool

Visitors to the INPAWS booth at Hoosier Outdoor Experience were treated to a new interactive display that helped them see the connection between butterflies and native plants.

The display is a giant jigsaw puzzle consisting of three-part mini-puzzles, each one featuring a specific native plant, caterpillar, and butterfly or moth. The puzzle pieces fit together in only one way: Each native plant piece connects only with the caterpillar that feeds on it, and the caterpillar piece connects only with the butterfly or moth that it later becomes. (Five of the mini-puzzle combinations are shown at right.)

The puzzle was designed by Amanda Smith and created by the Hamilton County Parks and Recreation Department in a cooperative agreement with INPAWS. When not being used at INPAWS events, the puzzle will be on display in one of the Hamilton County nature centers.

The puzzle's effectiveness was apparent in the reactions of visitors. You could tell from their comments that people suddenly understood that, without the native plants, they would not see the butterflies.

Got Something to Say?

Say it in *INPAWS Journal*. The *Journal* reaches 480+ member households, 105 affiliated organizations (other native plant societies, Indiana land trusts, libraries, cooperative extension offices), and occasionally 100 Indiana legislators (through additional printing funded by The Nature Conservancy).

We welcome articles on native plants, restoration projects, conservation issues, outreach efforts, botanizing expeditions, gardening with natives—anything likely to interest our readers. Article development assistance and editing provided. Please contact the editor with your ideas at wwford@comcast.net or 317-334-1932.

